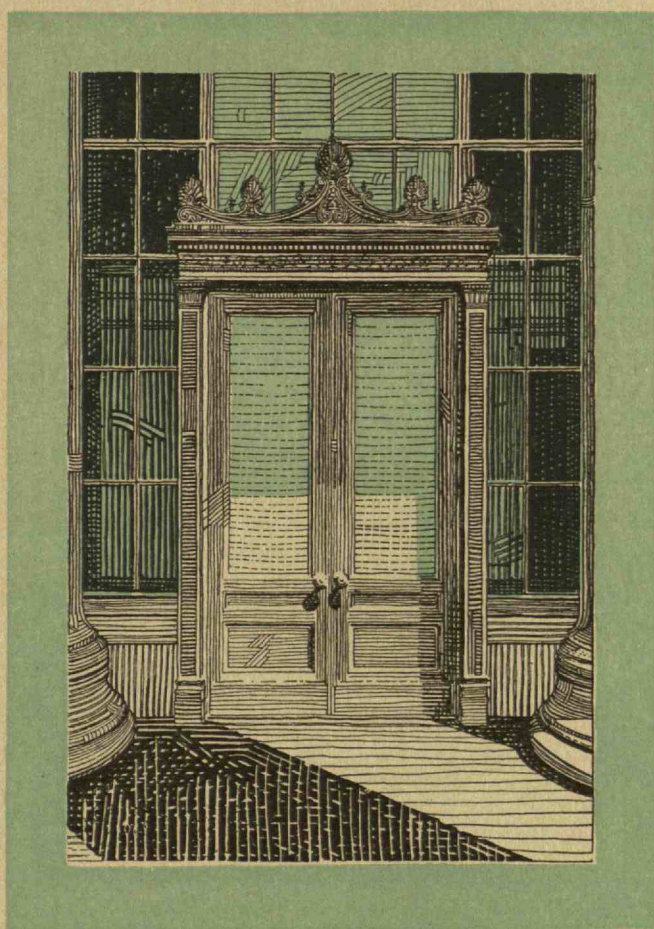


THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS
INSTITUTE OF TECHNOLOGY



FEBRUARY
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PUBLISHED BY THE ALUMNI ASSOCIATION

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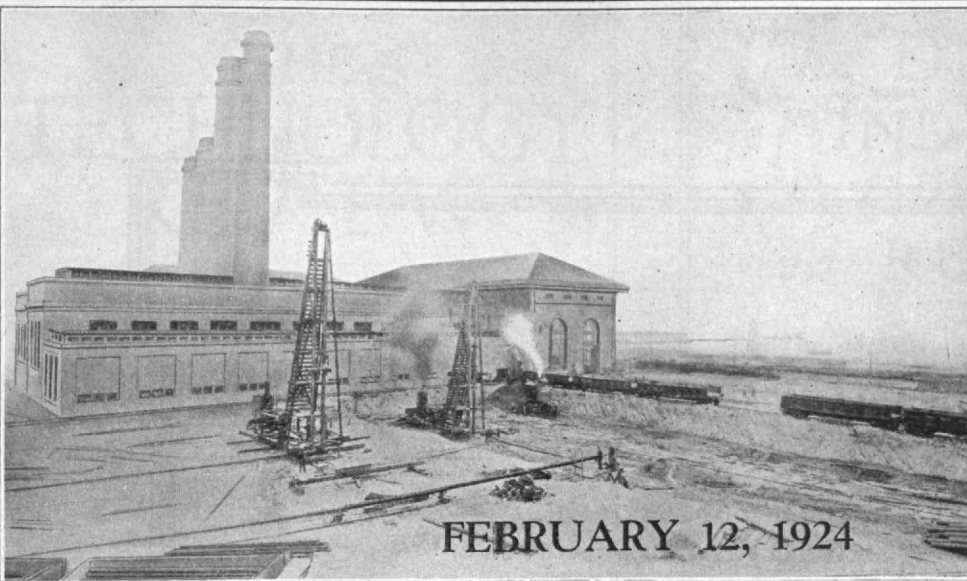
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THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS
INSTITUTE OF TECHNOLOGY

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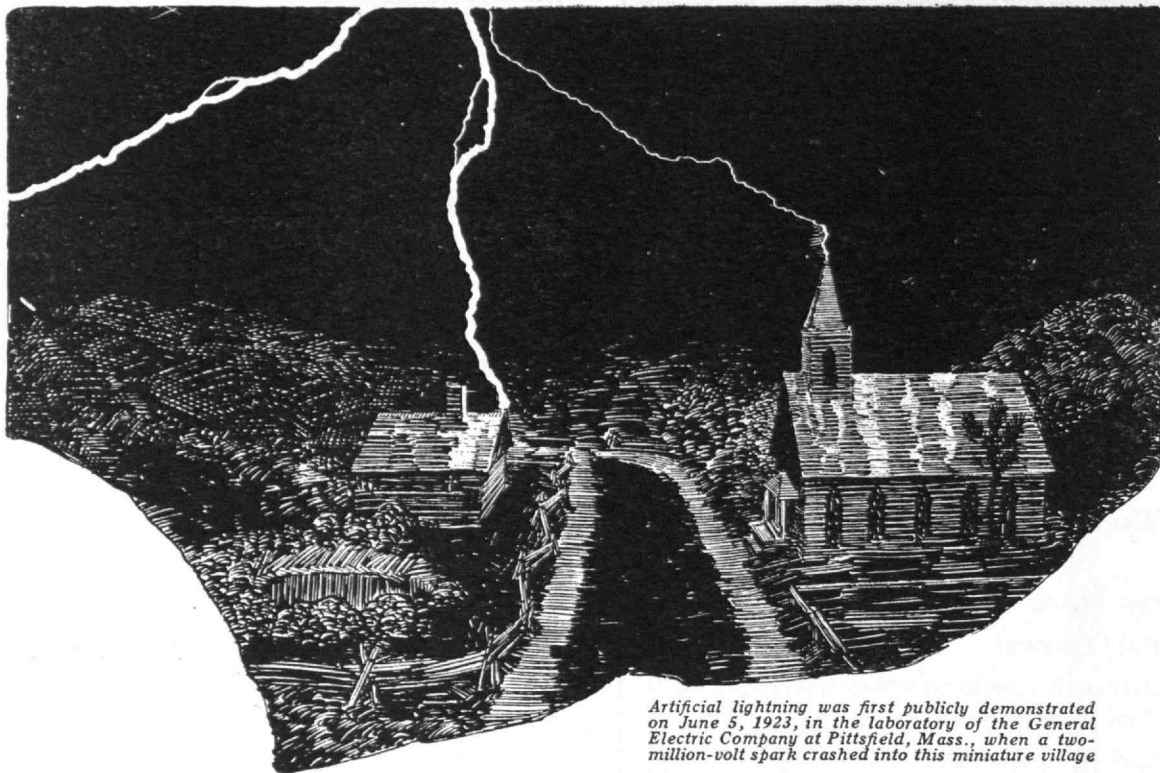
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THE TECHNOLOGY REVIEW

RELATING TO THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Vol. XXVII

FEBRUARY, 1925

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The Past Month

JANUARY 3 brought some five hundred men and women of Technology to the Main Hall of Walker Memorial for the Annual Dinner of the Alumni Association. By comparison with the affair of a year ago, the evening was short, yet at the same time well filled with matters of Institute interest. The principal speaker of the evening was Samuel M. Vauclain, President of the Baldwin Locomotive Works, who chose for what he called "the imposition of the evening", the title of "Optimism." Upon another page of this issue, The Review reprints, slightly shortened, Mr. Vauclain's remarks.

Dr. Stratton, kept from the dinner by the necessity for complete recovery from the illness and operation which had held him in Washington since mid-November, was represented by a message read to the Alumni by Dean H. P. Talbot, '85, Acting President in Dr. Stratton's illness. Dean Talbot proceeded from this message to a few words spoken in his own right, for the principal purpose of reference to the Eastman gift of last December.

The last spoken words of the evening came from Davis Rich Dewey, Head of the Department of Economics and Statistics, and, so time flies, now Senior Professor of the Institute.

Professor Dewey's speech, likewise, is recorded for the benefit of the Alumni at large, upon another page of this issue.

As customary, the evening was punctuated by interludes of musical and humorous entertainment, with Frank D. Gage, '22, he of the performing piano, and

Mr. Edward F. Payne, Cartoonist, of the *Boston Globe*, co-starring. Thomas B. Booth, '95, President of the Alumni Association, was toastmaster, and dispatched his affairs neatly, achieving also the considerable feat of ending the dinner a few minutes before scheduled time. Here is a mark for future generations to shoot at.



Marceau

JAMES FLACK NORRIS

Professor of Organic Chemistry who has just been honored by election to the presidency of the American Chemical Society

ONE of the most significant organizations in modern American Education is undoubtedly the American Association for the Advancement of Science. The purposes of this association are many, but the one with which educators are immediately concerned, is that of making scientific knowledge and scientific methods increasingly available to the public at large. The most recent Annual Meeting of the Association was conspicuous for its many and valuable contributions to this end.

The meeting this year was the seventy-ninth of the Association. It was held in Washington, from December 29 to January 3, being the fifth one in that city. It consisted of sessions of various committees and parts of the Association as well as meetings of the whole, of dinners and banquets, in short of almost every conceivable form of colloquium or gathering. The meetings began as

early as nine—and at least one did not begin until as late as midnight. The first meeting of the Association as a whole was addressed by Secretary of State Charles Evans Hughes. A comprehensive general exhibition of apparatus, materials, products and publications was an important feature of the gathering.

A 250-page program of the meeting has come to The Review desk. Almost all of its content is an enumeration of papers given. cursory glances through its pages, its long lists of scientists who gave papers of ten minutes or longer seems much like glancing through a Register of Former Students of the Institute. There are not many pages on which there are no familiar names. To speak in detail of all the Institute contributions to the assembly is manifestly impossible in the narrow space of these columns. One can but list the names of the contributors and the titles of their papers and let the cold facts speak their glowing story of Technology's contribution to the advancement of science.

Officers and Members of committees with Institute affiliation were:

C. G. Abbot, '94; E. W. Washburn, '05; A. A. Noyes, '86; A. E. Kennelly, Professor of Electrical Communications at the Institute; Waldemar Lindgren, Head of the Department of Mining, Metallurgy, and Geology at the Institute; A. B. McDaniel, '01; John B. Taylor, '97; Albert Sauveur, '89; William H. Bixby, '70; and H. W. Tyler, '84, Head of the Institute's Department of Mathematics.

Authors of addresses and papers were:

George K. Burgess, '96, Director of the Bureau of Standards; F. E. Matthes, '95, U. S. Coast and Geodetic Survey; Allan W. Rowe, '01; E. W. Washburn, '05, National Research Council; A. E. Kennelly;

Norbert Wiener, Assistant Professor of Mathematics at the Institute; S. D. Zeldin, Instructor in Mathematics; Philip Franklin, likewise Instructor in Mathematics; Paul Heymans, Assistant Professor of Theoretical Physics, and Nathaniel H. Frank, '23, Research Associate; G. L. Clark, Research Associate in Chemical Engineering.

ONE of the highest honors which may be accorded an American chemist was recently bestowed on James F. Norris, Professor of Organic Chemistry at the Institute, when he was elected President of the American Chemical Society for the coming year. Professor Norris received the degree of Doctor of Philosophy from Johns Hopkins University in 1895 and came directly to Technology where he has remained save for the period of years from 1904 to 1916 when he was Professor of Chemistry, first at Simmons College and later at Vanderbilt University. During the war he had charge of chemical research in war gas investigation carried on by the Bureau of Mines at Technology. He was also an associate member of the Naval Consulting Board. He is not the only representative of the Institute faculty holding office in the society: Dean Henry P. Talbot, '85, is a director. The American Chemical Society is the largest and most representative professional organization in the field of chemistry, having a membership of more than 15,000.

AFTER an absence of some eight weeks, conditioned by his stay in a Washington hospital, Dr. Stratton returns to his desk at the Institute. His present stay will not, however, be long, in that doctor's orders will soon send him off to the West Indies for further recuperation. It is probable that he will not resume continuous residence until, perhaps, the beginning of the last third term.

WILLIAM H. BASSETT, '91, technical superintendent and metallurgist for the American Brass Company of Waterbury, Conn., has been signally honored in receiving the award of the James Douglas Medal for distinguished achievement in the field of non-ferrous metallurgy. The medal is bestowed annually as a memorial to Dr. James Douglas, formerly president of the American Institute of Mining and Metallurgical Engineers.

Mining and Metallurgy, the official publication of the latter organization, says of Mr. Bassett, "He was the pioneer metallurgist of the brass industry . . . He is largely responsible for the present high quality of refined copper . . . He was the first to apply the spectroscope to routine work in the non-ferrous metal industry and to apply the microscope to the metallography of non-ferrous metals. He developed methods for the microscopic examination of copper and copper alloys and the relations between the crystal size, heat treatment and physical properties and the application



Courtesy of Mining and Metallurgy

WILLIAM H. BASSETT, '91

Most recent winner of the James Douglas Medal for distinguished achievement in non-ferrous Metallurgy

of metallography to manufacturing control . . . Although his greatest work has been accomplished in copper and brass, in regard to which he is an international authority, he has done hardly less notable work in other non-ferrous metals and alloys."

A PORTION of the 250,000 shares of Eastman Kodak Company stock, which Mr. Eastman gave to Technology and three other institutions, found its way, according to the *New York Times*, to the investment market several days before Christmas. The stock was sold by the Institute and the University of Rochester. Conditions were attached to the gifts to Tuskegee and Hampton Institutes which necessitated a different course of action.

The total involved was 187,500 shares and they were quickly snapped up by investors at \$110 a share, bringing to the selling institutions a total before commissions of \$20,570,000. At the same price per share, the value of the entire amount of Kodak stock given by Mr. Eastman would be \$27,500,000. The probability is that the balance amounting to 62,500 shares will be retained as a permanent investment.

Mr. Eastman said in his offer that the benefactors were not obliged to retain ownership of the stock and that they might sell whenever they chose. This caught the attention of several underwriters, who promptly notified the college authorities that they were ready at any time to undertake the work of selling the stock holdings to the investment market. The results described above confirm their confidence in their ability successfully to complete such an undertaking.

THE Past Month has again witnessed Technology Alumni and professors addressing societies in various portions of the United States. Dr. Charles Greeley Abbot, '94, assistant secretary of the Smithsonian Institution, told the American Astronomical Society at its recent meeting that after a loaf of nearly two years the sun is back on the job and is radiating energy at its normal rate so that now there is nothing further to worry about. Dr. Abbot's original worry was recorded in *The Review* one year ago.

In reading the title of the recent talk by George B. Haven, '94, Professor of Machine Design at Technology, one would leap to the conclusion that he, too, was dealing with the firmament. Professor Haven addressed the Southbridge Manufacturers Association at its December meeting on the subject, "The Wings of Heaven." The wings, however, turned out to be those neither of angels nor of comets but of airplanes and the talk concerned the manufacture of fabric used in the wings.

The third address to be recorded was, on the other hand, of the earth earthy; a talk on "Metallography and Its Use to the Engineer." This was given to the Providence Section of the American Society of Civil Engineers. The speaker was Dr. Robert S. Williams,

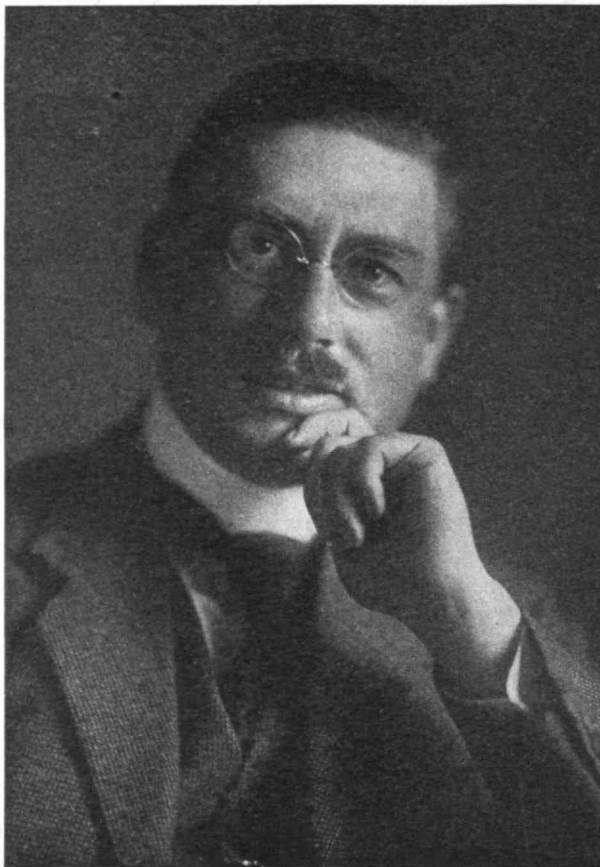
'02, Professor of Analytical Chemistry and Metallography at Technology.

AN informal conference between some leading professors of organic chemistry and the technical representatives of organic chemical industries was a new feature of the annual meeting of the Synthetic Organic Chemical Manufacturers Association of the United States held recently in New York City. The Institute had representatives on both sides, Professor James F. Norris being one of the chemical authorities invited to take part in the discussion and Frank Cheney, Jr., '82, and Franklin W. Hobbs, '89, being among the manufacturers who accepted invitations to be present.

RESEARCH in connection with lighter-than-air craft is again receiving aid from the Institute. Readers of *The Review* will remember the work done at Technology on the structural analysis of the *Shenandoah*. The latest development is a direct measurement of the strain in the frame of an airship of the semi-rigid type, not yet built, to be accomplished by the use of a water-filled model of the ship. The model is to be about nine feet long and two feet in diameter being at a scale approximately one-thirtieth of that of the proposed ship. It is to be filled with water and suspended upside down. In that position the deformation of a model keel will give a measure of the complicated forces acting in the actual ship, forces which can not be calculated satisfactorily.

The theory of the investigation was worked out by Dr. Tuckerman, of the Bureau of Standards. The Institute's contribution is to be made by Professor William Hovgaard, of the Department of Naval Architecture, who is designing the model keel and under whose direction it will be built in the Institute shops. The rest of the model is to be made at the Akron plant of the Goodyear Company and the tests will be carried out there.

ONCE more the Hawaiian Volcano Observatory has had its control transferred without, however, any change in its operation. Dr. Thomas A. Jaggar, Jr., formerly Head of the Department of Geology at Technology, still remains in charge. The observatory stands at the edge of the active crater of Kilauea. It was first planned by Professor Jaggar in 1909 while he was at Technology and regular scientific studies were begun at the crater in 1911. For a time the observatory was operated by the Institute, although much of the support came from local Hawaiians — the town of Hilo, for example, presenting an observatory building in 1912. In 1913 a local committee organized the Hawaiian Volcano Research Association which supported the observatory till 1918, when it was transferred to the Weather Bureau of the United States Government. The most recent change in jurisdiction is from the Weather Bureau to the Geological Survey.



A DISTINGUISHED PHYSICIST AT TECHNOLOGY
*Prof. P. Debye, noted physical chemist, who is lecturing
 at the Institute during the second term*

ORVILLE B. Denison, '11, Secretary-Treasurer of the Alumni Association, went *en tour* with his familiar specialty act during the second week of January. His trip, beginning on January 7, took him successively to Philadelphia, Washington, Baltimore, and New York, in all of which cities, saving the last, local associations held meetings to provide him with an audience. By contrast with the year previous to this, Mr. Denison has made few trips, and has held close to his Cambridge desk, acting the part of resident rather than of field secretary. Necessity for economy within the Alumni Association this year prevents the extended tours of the previous régime.

THE present term will witness an innovation in surveying instruction at Technology. Gerard H. Matthes, '95, will deliver a series of six lectures upon Aerial Surveying and Mapping under the auspices of the Department of Civil Engineering. Mr. Matthes is at present Consulting Engineer for the Fairchild Aerial Surveys, Inc., of New York City. For the past few years he has given special attention to aerial surveying and was in charge of the survey of the Tennessee River in which this process was used. Aerial surveying is particularly useful in relation to projects for hydro-electric development for by this method it is possible to select approximate transmission line routes

without entering private property. It is also valuable in making traffic maps of cities, the recently prepared map of New York City being a notable example. It is coming into more and more prominence with the passing of each year. Professor Charles M. Spofford, '93, Head of the Department of Civil Engineering, states that in his opinion Technology is doing pioneer work in this form of instruction and that he hopes in another year to have it taught in the regular classes in surveying.

THE Institute is rich in its list of distinguished foreign scientists who have lectured or will lecture here this year. Close on the heels of the lectures by Professors Fabry, Vallée-Poussin, and Oldenberg, came the announcement from the Department of Physics of a series of twenty lectures on "Some Aspects of Modern Physical Chemistry" to be delivered by Prof. P. Debye in the second term on Tuesdays and Fridays. The lectures are now in progress. They are open to the public.

Professor Debye was born in Holland and has been associated with one or another of the German or Swiss Universities since 1906. Receiving his Doctorate at Munich in 1908, he held the chair of Technical Physics in the Universities of Zürich, Utrecht and Göttingen successively. Since 1920 he has been Professor of Physics at the Technische Hochschule at Zürich.

H. S. FORD, Bursar of the Institute, was recently honored by being reelected Secretary and Treasurer of the Association of University and College Business Officers at its annual meeting. The meeting this year was held at Brown University and was the largest that has been held since the first one in 1920. More than seventy institutions were represented on the register.

WHEN Donald MacMillan returned from his recent voyage in the frozen North, Technology Alumni played a prominent part in the jubilant reception which he was accorded in Boston. The culmination of the reception was a dinner given for the explorer at the Boston City Club. The principal speaker at the banquet was Hiram Percy Maxim, '86, inventor and head of the American Radio Relay

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DONE!

*The Technology Cross Word Puzzle of
 H. P. T., '85, seems, after all, to have been
 soluble. Here is the key*

League. Seth K. Humphrey, '98, also was among the speakers. The addresses of welcome were followed by an illustrated lecture by Mr. MacMillan.

In his address, Mr. Maxim mentioned the skepticism with which he had first heard the news that MacMillan was going to install a radio set on his ship. Communication with the United States had turned out, he said, to be an easy thing. He would further venture the prophecy that within the next three years voyages to the Arctic would be made in the air. When that time came he hoped that Donald MacMillan would be the first to fly to the pole.

TWO years ago the so-called psychological tests for freshmen were inaugurated by the Institute. They were found to have a not inconsiderable value in predicting what might reasonably be expected of the individual student in the future. That the value of the results was admitted, may be inferred from their repetition last year.

This year, tests were again given, but the examination was of a slightly different nature. It was arranged by the American Council on Education. One December afternoon all the freshmen were ordered to assemble in one of three large lecture halls. This appointment took precedence over all others, and in that way there were few absences. The examination took one hour. Results will not be published.

ALUMNI who follow Institute athletics will be interested to learn that the allotment of Undergraduate Dues for the coming year has been changed so that the funds for athletics are to be increased nearly ten per cent. The increase is provided for by a cut of about fifty per cent in the allotment for Classes and of thirty per cent in that to Reserve and Contingent funds. The change will be an appreciable help to a growing cause.

Editorial Comment

Where A year has now gone by since the
the West Institute's proud announcement, early
Begins in 1924, that it had added 1,300,000
square feet to its territory by the purchase of land to the west of the Mississ—

no, we beg your pardon. It has grown to seem remote to us, but in actuality the tract is no further West than the other side of Massachusetts Avenue. This land was not purchased for investment purposes: its acquisition was announced as designed to make possible a future physical expansion of the Institute which would not have been possible on the original fifty acres.

It is, then, natural to enquire what progress has been made during the year elapsed since purchase toward roughing out some plan for the eventual utilization of this admirable tract. What nobly imagined idea has been put forth for the solution of the Institute's

present housing difficulties? What brave architect has reared up from out his mind a breath-taking panorama for a Technology of the future? What hard-headed engineer has given study and voice to the problem of laying out the units of this some-day community? Well, friends, the ascertainable progress seems to amount to this: a half dozen or more of concrete tennis courts are to be built upon the new land next spring.

We confess that this one definite proposal so far audible seems a trifle out of key with the majestic announcements of a year ago. Concrete tennis courts will certainly be productive of no harm beyond a possible mild epidemic of broken arches, but it is hard to escape the fear that this type of beginning is not one that would meet with the approval of any long-sighted planning board, did one exist. Somehow, we do not get the impression that our salvation lies in concrete tennis courts.

What objection can there be to the early establishment of a planning board, an art commission, a development committee, whose actual name would be anything you like, but whose duty it would be to re-study with much care, thoroughness and architectural scholarship the present vexing problem of the proper mode and direction for Technology's future expansion. We can see no objection at the moment other than the inertia of corporate bodies. It can hardly be doubted that Technology's need for it is great enough. The acquisition of new land, plus the more recent acquisition of funds a portion of which will almost undoubtedly find its way to use, if not for dormitories, for additions to the educational buildings, all make the present a time most propitious for the announcement that a group of competent men have the problem of expansion in mind.

Little has been done since 1916 in the way of thoughtful planning, and even less to set forth in a manner to stimulate the interest of Alumni, such plans as there have been. It is already quite evident that several regrettable mistakes in building location have been made within the past ten years, and although there is no telling whether time will emphasize or minimize them, it is greatly to the interest of Technology to see that they are not repeated. Some, perhaps, were inevitable consequences of the necessity for huddling buildings together on an insufficient site: now that this necessity has gone by, there is small excuse for a failure to wring, by careful study, the most from our resources.

It is granted that the way of a planning committee is not easy. Thoughtful plans at Yale not long ago met with a violent student uprising. Harvard is having its troubles at the moment in the matter of the "Counting House." But these symptoms of irritation are healthy ones indicative of interest in what should be a problem for the concern of many. With a vengeance, we have these problems at Technology, yet too few are the indications either of interest or of a dis-

position to foster and excite interest. No plan formulated today could be so carefully drawn that without revision it could last for as long as a decade. It is none the less possible to settle a few fundamental principles and throw open for general discussion (not all profitable, perhaps, but at least stimulating) their multitudes of corollaries. Should new laboratories and shops, which for some reason must be separated from the main Educational Group, go on the new land? Should the identity of the Architectural Department be recognized by a separate building on the new land or should it in some fashion join with the Main Group? Should the new land be dedicated largely to the upbuilding of the essentials to a student community—gymnasium, swimming pool, infirmary, dormitories, gridirons, diamonds, tracks—to the exclusion of other purposes? If so, how reconcile the present location of Walker Memorial and the present dormitories? Might they some day provide the necessary meeting place for the great faculties and alumni bodies of the Technology of the future transferring the student center to a larger and—dare we say it?—more appropriately designed union? Are more dormitories advisable in the Chocolate Belt, now that the fresh, clean, uncontaminated stretches of new tract are available? If not, what solution for the present structural condition of the '93 dormitory?

These few questions form themselves rapidly even in the mind of a tyro in architecture. How many more there must be, and how complex and fascinating would be the possibility of thinking them out and proposing solutions for them, if only the job were invested with some small authority, given some small official sanction and encouragement.

In the office of the Dean there hangs, where apprehensive students may study it, one of the early perspective drawings of the proposed new Institute, done by Welles Bosworth, '89, in 1913. There is not, save for the Main Group, one building in it which bears the faintest resemblance to an existing present day Institute building. For the Main Group, the resemblance is faint, yet unmistakable. But that drawing, still full of interest, was in its day invaluable in visualizing to the lay alumnus a scheme by which the Institute might develop in its new commanding location on the Charles. No doubt it went through at least a thousand separate modifications before the actual limestone was dedicated. No doubt it contained its share of error and unwisdom. Its value lay in that it was a starting point for much salutary discussion.

Any committee which would attempt, tomorrow, to lay out a building program for the next hundred years of the Institute, would find its plan, no doubt, quite ludicrous in a decade. But a start, any start, made from the sheer love of speculation—that would be a charming and heartening thing to hear about, and a thing the absence of which in the past few years has seemed to some of us faintly shocking. By the signs

the Institute stands at the beginning of an era not dissimilar to the one which, by common consent, began in 1912. Funds it will have, and let us hope that imagination will rise to meet them.

Trans-planting St. Moritz

And now the Institute has a skating rink. Unconscious, apparently, of the natural fitness of the supposititious walk between Building Two of the Educational Group and the west entrance of Walker Memorial as a natatorium or a St. Moritz in little, dependent upon the temperature, the Superintendent of Buildings and Power some weeks ago laid out, slightly to the east and to the rear of the Library Dome, a plot of two thousand square feet (a guess, dear readers. It may be five hundred or twenty thousand: we have no eye for areas) and soaked it with one of the more redolent coaltars.

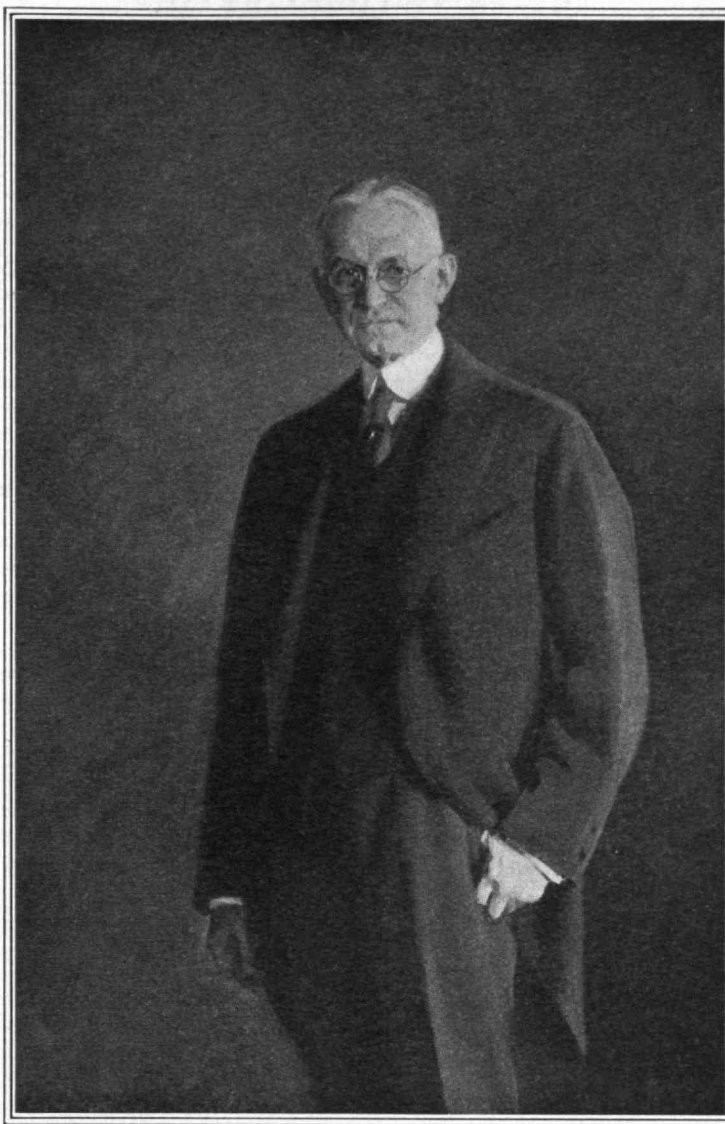
Enclosing the area he then erected a fencing of sturdy pine, aptly braced against the elements and the inevitability of assault by the skidding caudals of unhorsed contestants. Having then banked up earths about this circumscription in housewifely fashion and garnished the whole with arc lights, he proceeded to flooding of the area by fire hose. Alas for the cruel inconstancy of Nature. Had it been a baseball field the enclosure would have husbanded the waters like a parching sailor shipwrecked in the tropics. Being designed for a skating rink, however, it perspired them freely to the surroundings, nor would all the Dutch boys in the Netherlands have had fingers enough to thrust into the holes of the retinary dike.

But persistence, that's the thing! Standing determinedly with a fire hose in one hand and a bath thermometer in the other, Major Smith's men were at length able to seize upon an opportunity to reflood the rink and have the waters freeze ere they totally escaped. All was merry. Came then a warm enervating rain, and the Major's work to do over. Done it was, yet since then the elements have overlooked no chance of piling their insults upon the hapless man. Snows, and mushy thaws, quickly refreezing errant hoof marks into what should be a surface of glass. Not yet has the Gulf Stream altered its course for the final obliteration of the harassed enclosure, yet is this impossible were Major Smith in his bitterness to defy it?

So far, then, few hockey games. Time may bring an easing of Nature's grudge. Meantime, the optimist suggests that the hockey team is making a record on the home grounds, which it could not equal in any other way. The pessimist shakes his head at the steady-rising level of the enclosure's laminated content and wonders what of the Institute, what of Building Ten, when there will come a great relaxing thaw, and from the rink will pour a torrent, half glacier, half Missouri River, to sweep before it what is in its way. There is much discussion and little skating, but the arc lights burn bravely through it all.

Portrait of
Mr. Eastman

Painting in oil
by Louis Betts



At the age of seventy George Eastman finds himself on the threshold of a new life—a spiritual adventure unique in the career of Americans who have amassed great wealth. Whither it will lead him or what philosophy it will develop he cannot tell. To quote his own words on entering upon the new life, he is going to give himself “the benefit of a somewhat more detached position in respect to human affairs.”

For Mr. Eastman the days of money-making are over. He has toiled for fifty-six years—since he was 14. He has rolled up a fortune and built up a great industry. He has given away more than \$58,000,000, capping his philanthropies with his recent gift of \$15,000,000 for educational purposes. Now he intends to stand by in the spirit of detachment and watch the results of his philanthropy develop.

What manner of man is George Eastman? What in his past life foreshadowed this extraordinary climax? What brought him success? What was his mainspring? He told me frankly that he doesn't know. He has been working so steadily that he has not had time to gauge himself. He is going to find out.

He told me, though not in so many words, that he is about to develop a new negative in his photographic dark-room. Remember, he is an amateur photographer. “Amateur—one who loves” the work. He has been that all his life. This time the plate that he is going to try to develop is his own soul. It has been exposed to the lights and shadows of the world for seventy years. Now he wants to find out what is printed on it. He doesn't know. No one knows. The supreme experiment!

You shut yourself in a dark-room and place the

kodak film in a shallow tray, in a bath of chemicals and rock it gently. Presently, over the gray surface of the film steals a tracery of lights and shadows. Mysteriously it takes shape. Out of the unknown comes a picture. It is a miracle. Who knows what the picture will be like until it has been thus developed? No one. That was the answer George Eastman gave me.

Take another simile from the kodak business. “Sensitiveness.” That word existed before there was ever any such thing as a photographic plate or film. It means the power to feel—the opposite of callousness. The chemicals which

impregnate the cellulose film have the power to feel sunlight. Light affects them instantaneously. They feel—intensely. They are sensitive.

Well, George Eastman is sensitive, amazingly sensitized. I don't suppose you will believe that he is almost pathetically sensitized. One doesn't usually think of a man actively in charge of an enormous business and worth millions as being pathetic in any sense. And yet, as I talked to him, I couldn't help making that observation.

Pathetic, in the sense that he is exquisitely sensitive. So is a poet, and you think nothing of calling a minor poet “pathetic.” Much of the sympathy you feel for the poet springs from your perception of the fact that he feels intensely and cannot adequately express his feeling. Great energy trembling to no accomplishment—there is nothing more pathetic in the universe.

Instantly you will deny this assertion, as applied to George Eastman. You will say that he has already found tremendous self-expression, not only in building up a great business and profiting society through its products, but in giving away millions of dollars to

Mr. Eastman Embarks on a New Adventure

The recounting of which is reprinted by special permission from the New York Times

By SAMUEL MCCOY
Writing in the Times Sunday Magazine

educational institutions for the benefit of generations to come. That's all very true. But the point is, George Eastman himself is not satisfied with this.

He told me so himself. He told me, not only in his words, but in his silences. He has expressive silences. He would probably be surprised if you told him how much he said in thirty seconds of silence.

The day after the announcement that Mr. Eastman had given \$15,000,000 more for educational purposes he said he welcomed the opportunity of making the gift because it "would give him the benefit"—him, mind you, not some one else—"of a somewhat more detached position in respect to human affairs." That position, obviously, was now worth more to him than \$15,000,000.

He is half sorry now that he said that out loud. Not because he doesn't believe in it thoroughly; but because it gave the public a glimpse into his innermost soul. And he has never believed in revealing himself to anybody.

I wish you might have met him, as I did. He is a shy man. He doesn't talk about himself. He would rather be shot than talk about himself. Just remember that for seven years the public did not know the mysterious "Mr. Smith" who during that time had given more than \$11,000,000 to the Massachusetts Institute of Technology.

So it was that he came shyly out of his own office into the adjoining room, where I was. He hesitated at the door. He pretended to adjust a picture hanging there. He looked over his shoulder as he did so. He was silent. He certainly did not intend to be the first to speak. He would have sidled out of the room as timidly as he entered it if he had not forced himself with an obvious resolution, to remain for a courteous period. He talked with his silences.

Mr. Eastman did talk and make definite statements. But he insisted, with a charming stubbornness, that his precise words must not be quoted. You must accept the assertion that what is written here emanates from an inarticulate mystic, the shy person who lives in George Eastman.

Although one calls him "shy," do not get the impression that there is anything weak in that shyness. The line of his lips is firm, as befits a man who successfully manages a business of enormous proportions. His eyes, back of his rimless glasses, are keen. When he says "No," he means "No."

And he has a quick and ready sense of humor. He doesn't mind if the joke is on himself. He chuckled, bubbled, at once when I repeated to him a good-humored jest coined about him. He likes good stories, enjoys people and is a generous host in that great mansion of his. He's thoroughly human. But he does not talk even to his most intimate friends about his spiritual questionings.

"George Eastman never discusses his deep personal feelings with any one, not even his most intimate friends," said one who knows him. "He doesn't go to church often but he does have a deeply religious nature. His acts show that, his face shows that. He numbers leading clergymen among his close friends, but although you might think that he would discuss his spiritual beliefs with them I doubt very much if he does. That's one thing he won't talk about. His physician is an intimate friend of his, too, but I'm sure that George Eastman doesn't talk even with him about his personal philosophy. Perhaps that's because he can't. Perhaps it's because he is tongued-tied in

that respect. But I prefer to believe it's because he feels too deeply on such matters and keeps his own sanctuary."

Now consider the evidence of his life. Between George Eastman and his mother, Maria Kilbourn Eastman, existed the most important relation of his life. His father died when he was 7. His mother kept the boy in school until he was 14. At 14 he found a job as an office boy at \$3 a week. Out of that first year's earnings, \$156, he saved \$37.50. By the time he was 25 he had saved \$2,500. His mother helped him do that. Those were grim days for the little family. But their hardships knit them together the closer. George Eastman, recognizing what she had done for him, loved his mother with a passionate tenderness. He never married. For fifty-three years, until her death in 1907, at the age of 86, they were together.

You may walk around and around that fact — fifty-three years of devotion between mother and son — and from whatever angle you contemplate it you will draw a store of profound significance. In his silences, he speaks of her.

Then, shortly after her death, began the second great communion in George Eastman's life. It was with music. He listened. George Eastman knows nothing about music, in the ordinary sense. He does not play any instrument. He cannot even hum an air. More, he cannot even tell one composition from another.

And yet he listens to music, demands music, yearns for music, with great eagerness. He has given the money with which to found a school of music, he has maintained a philharmonic orchestra at great expense, built a splendid theatre for Rochester in which concerts are given, and he attends a concert at every opportunity. But even this is not all. He maintains a string quintet of musicians who play for him whenever he is at home. Sometimes he invites friends to hear these concerts and sometimes he has the quintet play for him in the mornings before he goes to his office.

And all this while he remains, as he stoutly insisted in spite of my skepticism, unable to carry a tune.

Where shall one look for an explanation of this extraordinary devotion to music on the part of a man who believes himself almost deaf to rhythm and melody? The answer lies, I think, in his shyness, and in a desire, a fierce desire, for spiritual companionship.

He listens. He listens to the divine and wordless speech. He cannot get his fill of listening. Deep within, deeper than those nerves which take the facile impressions of melody and beat, something stirs in answer. It is not music; it is a universal and freshening force, bathing and energizing him whom it caresses.

George Eastman's business in life thus far has been to make things, not to make words. But he once said this:

"One may consider his business as primarily a making of things, or one may set up an ideal and consider those things which he makes only as steps toward an ideal."

Then he added his definition of an ideal. He called it: "A definite object which can never be reached."

He said also:

"To be successful, a business must have continuity."

And he added:

"Continuity depends upon broad policies that are wrought out of experience. Of these policies, the most important is an idea rather than a thing."

And he said this:

"There is always a fork to every road."

When one considers the man himself, and not the tangible products of his factories, the man himself and not his wealth, these sentences of his form the chart of a soul's journey. Others will go along the same roads. The last sentence lights up the adventure of human exploration into the unknown. The first sentence is as easily transferred from the world of things to the world of character.

From another of these sayings, too, one gets George Eastman's answer to the question: "How shall one pilot a soul?" He answers that the course must have continuity; and that continuity depends upon truths wrought out of experience.

The man who has worked with the intensity with which George Eastman has worked for fifty years is entitled to receive, at 70, leisure in which to ponder upon the soul's experiences and its future course.

What are the truths to be wrought out of this long pilgrimage? They are still to be expressed. And perhaps they may never be.

"Why has George Eastman given away nearly \$60,000,000?" Isn't it because he is eager to discover basic truths? There will be continuity in that journey. At the first, and through bitter years, he struggled to evolve a material thing which would record with delicate sensitivity the seen world; then he found music and hears it speaking its mysterious languages that cannot be interpreted again; and now he releases himself for a newer and stranger experiment.

"The mixture of discovery and of extending constitutes the thrilling adventure of business," he once said. The adventure of the soul, which he now proposes for himself, must be more thrilling still.



"IN MEMORY OF GEORGE ROBERT WHITE"

*Daniel Chester French, '71, is the sculptor of this memorial to a Bostonian benefactor
The memorial is in the Boston Public Gardens, near Arlington and Beacon Streets*

Conlin

Put Yourself in His Place

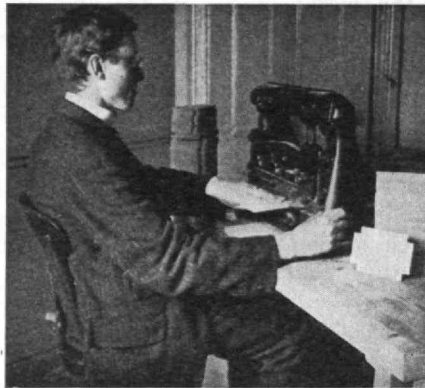
Imagine the situation of the blinded man in the modern world of industry

All of us have had our narrow escapes. Many of you who read this have been in accidents and have been fortunate enough to escape serious injury. Did it ever occur to you what you would do if you lost your arms, your legs, or, worst of all, your sight? Have you ever tried to figure out how you would make your way in the world if any of these things should happen to you? Such a situation has its difficulties, you will admit.

But if it is a serious matter for the handicapped college man to readjust himself, how much more difficult it must be for the man of limited education. Picture to yourself the tragedy of a man attempting to change not only his trade or vocation, after he has become established in it, but making such a change without the use of sight, hearing or limbs. Unconsciously, every one of us is so convinced of the difficulty of such a readjustment that we assume it is virtually impossible. Our very attitude forms the biggest barrier in any rehabilitation work for the handicapped.

When I graduated from Technology in 1901, my first job was helping the blind. This was not unnatural, for my father was blind and I was born in the school which he founded in London, England. He had lost his sight by accident when a lad in his Tennessee home. In spite of many obstacles, he succeeded in acquiring a good education and, later, came from the South to New England, where for eleven years he was associated with Dr. Samuel Gridley Howe in his work at the Perkins Institution and at the Massachusetts School for the Blind in South Boston. While returning to America from Germany, where he had been taking advanced study in music, Mr. Campbell was asked to remain in England and to assist in the development of modern educational methods for the blind, with the result that he was largely responsible for the founding, in 1872, of the Royal Normal College and Academy of Music for the Blind. For forty years, Mr. Campbell presided over this unique institution, which set a high-water mark in the possibilities of making the blind self-supporting. While at the head of this School, during one of his many visits to Switzerland, he succeeded in reaching the top of Mt. Blanc, being the first and only blind man to ascend Europe's highest peak. Many

By CHARLES F. F. CAMPBELL, '01
Director, Detroit League for the Handicapped



The author found a position for this blind man in the Dennison Manufacturing Company in 1904. It was the first placement of its kind in this country

times he referred to this as being one of his "best day's work for the blind." By doing what was little more than a game of golf for most of us, he called attention to the fact that one could do things seemingly impossible for the blind. As a result of his amazing energy and foresight, he caused to be built in his institution a swimming pool, gymnasium, skating rinks, bowling alleys, cycle tracks (for use of multicycles for blind riders), many years before any other institution in the world provided similar activities for the blind. Toward the end of his life, conservative old England, through its representative, Edward VII, knighted this American blind man as a mark of appreciation for his services in behalf of the blind in Great Britain.

I have mentioned the above facts with regard to my father not because I happen to be his son, but rather to suggest to my alumni friends that, having been brought up in daily contact with such a blind man, who completely discounted his blindness, it made it easy for me to go forward along untried lines in work for the blind in the United States. In 1903, the Massachusetts Association for Promoting the Interest of the Adult Blind, the first organization of its kind in the United States, was formed, with the writer as its executive officer. One of the first things we attempted to do was to win openings for blind men in factories side by side with those having sight.

Filled with the enthusiasm of a young graduate and inspired by the knowledge of what had been accomplished by a blind father, I began by visiting many of the various factories in and around Boston. It was comparatively easy to find jobs which were quite mechanical in their operation; indeed, some of them were being performed by sighted operatives with little and sometimes no use of sight. In other words, the operative performed his or her task practically by the sense of touch. While it was easy to find such jobs, it was almost impossible to sell to employers the idea that blind men could do the work.

Well do I remember my interview, in 1904, with the late Mr. Charles Dennison, the then-President of the Dennison Manufacturing Company, who had been a lifelong friend of my father. I told Mr. Dennison that I felt confident a blind man could do one



Her Majesty, the Queen of Belgium, acquainting herself with work done by the American Red Cross in rehabilitating the United States blinded World War veterans. The author of this article, who worked for three and a half years at the Red Cross Institute for Blind Soldiers, is seen at the right of the picture

of the jobs in his factory. He turned to me and said, "Charley Campbell, I am not running a Sunday School but if there is any job in this factory which a man can do without the use of his sight, I am perfectly willing to give him the opportunity to prove whether he can do it, with the distinct understanding that he is to be paid upon the basis of the work accomplished." So far as I know, Mr. Dennison was the first employer in the United States who was willing to provide such a chance for an official demonstration of the thesis that blindness need not be a barrier to employment in industry. In passing, it should be noted that blind men had secured positions as tuners in piano factories in both Europe and the United States, but, in such factories the employers discounted the blindness because everybody recognized that you tune a piano by the sense of hearing and not by the sense of sight.

value of inducting a man who has been suddenly blinded promptly into an institution in which the very atmosphere breathes optimism. The average civilian who loses his sight in adult life spends months, indeed sometimes years, in striving to regain his sight, and, during this period of idleness and discouragement, he has little idea that a world of darkness holds any opportunity for him. It was quite remarkable to find these blinded soldiers coming back from Europe with absolute confidence that something practical would be done for them. Of course, it was understood that they would receive liberal financial compensation but they also gathered the impression, even before they arrived in Baltimore, that they would be able to get on their feet and "make a go of it."

When a man arrived at "Evergreen" (as the Red Cross Institute was called), nothing was ever said about



Hughes

Dancing is one of the best activities for the rehabilitation of the blind. Not only does it give them grace, poise, and recreation, but confidence in their ability to do just as they did when they could see

In 1906, the pioneer work undertaken in Massachusetts by the privately supported association for the blind was taken over by the State and the first permanent State commission for the blind in this country was established. The writer continued with this organization for some time and then went to western Pennsylvania, with headquarters in Pittsburgh, where similar work was to be established. Soon after this, the State of Ohio created a State commission for the blind and, once again, I moved West to assume the directorship of this enterprise. When the War broke out, it was soon recognized that all the countries would have to struggle with the problem of the blinded soldier and the Army authorities, in cooperation with the American Red Cross, promptly established a training school for the men who were paying the price of their service with the loss of their sight. "The Red Cross Institute for the Blind," as it was known, was located in the suburbs of Baltimore and to this institution every man who lost his sight overseas came.

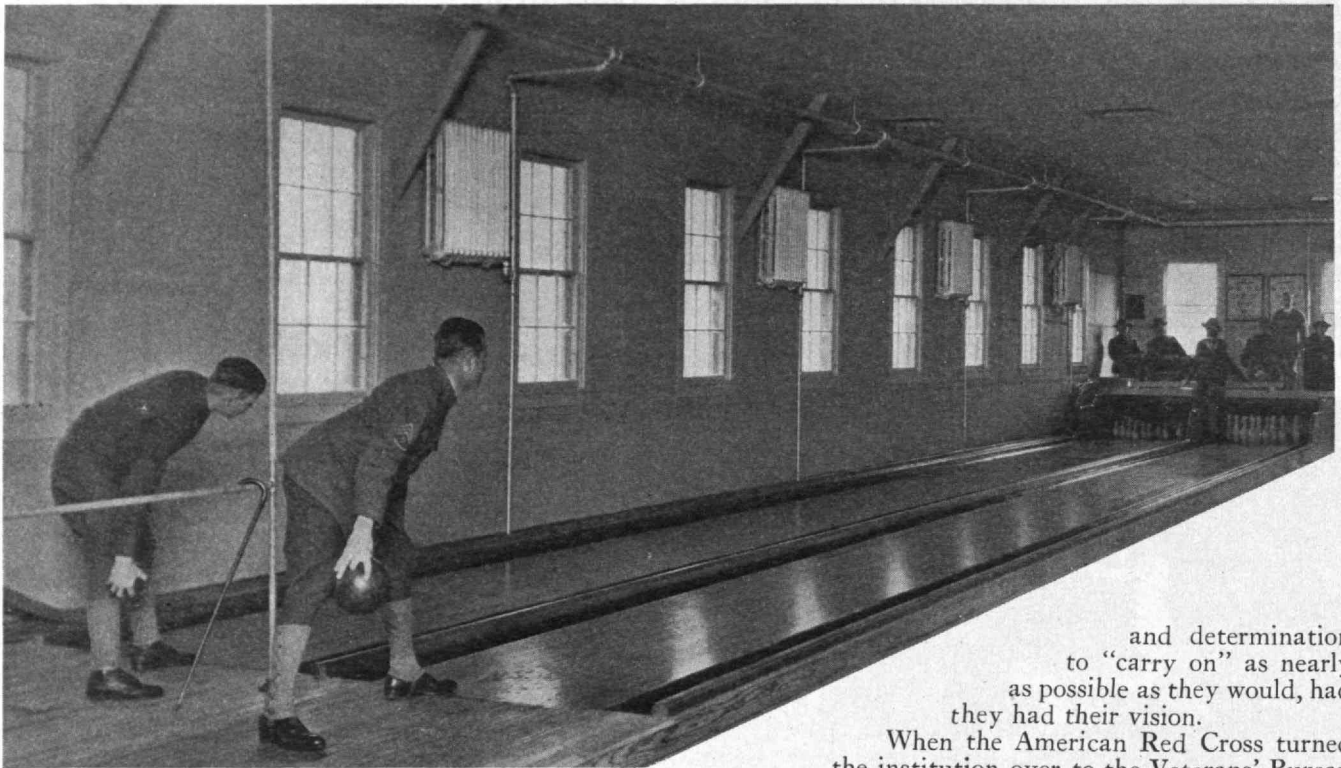
For three and a half years I worked with these men, and was tremendously impressed with the immense

his loss of sight but everything in the place conspired to minimize that loss. Within a very few days, the fellow who had been led around by kindly disposed nurses or attendants suddenly discovered himself finding his way about the extensive grounds of the institution as independently as the rest of the crowd. Within a week after his arrival, he was almost sure to attend one of the dances which were held twice a week in the gymnasium. It may seem a strange thing to say that these dances were perhaps the most important educational feature in the institution, and, yet, to a very marked degree, they were. Here these blinded soldiers found jolly companions with sight, mingling and dancing with their blind buddies. Almost instantly, the newly blinded man discovered for himself, without any comments, that he was able to dance in the dark. Having accepted this much freedom within a day or two of his arrival, it seemed a very natural thing to go to the bowling alley, where many a totally blind soldier was running up a splendid string just as he had done in the good old days of his sighted youth.

In the dining room at small tables, where all the

BLIND SOLDIERS BOWLING

The railing at the side of the bowlers, parallel with the alley, gives the blind man his sense of direction. Just before he rolls the ball he allows his hand lightly to touch the railing



appointments of home were to be found, there were always two or three people with sight ready to give the fellows a helping hand at learning how to handle themselves and many a guest who visited the dining-hall found it difficult to believe that these men, who were using their knives and forks in a most natural fashion, were unable to see. During the entire time that I was with these men — and for more than three years I lived in the barracks with them — no word was ever said about shaving without the use of a mirror, cutting up ones meat unaided, walking about with absolute freedom, dancing, swimming, roller-skating, bowling, working in the carpentry shop, in the poultry yard, in the massage class, or in the model store, without the use of sight. In other words, when the men came to Evergreen, they found everything going just exactly as if those about the place had the full use of their vision. The result of this healthy, optimistic attitude was that the men themselves took for granted that they could do many things that would have seemed impossible if they had stopped to think about the matter. During their sojourn at this institution, of course, the men were given the educational and industrial advantages that were deemed best for them, but the biggest single contribution in their readjustment was the unconscious acquisition of faith in themselves

and determination to "carry on" as nearly as possible as they would, had they had their vision.

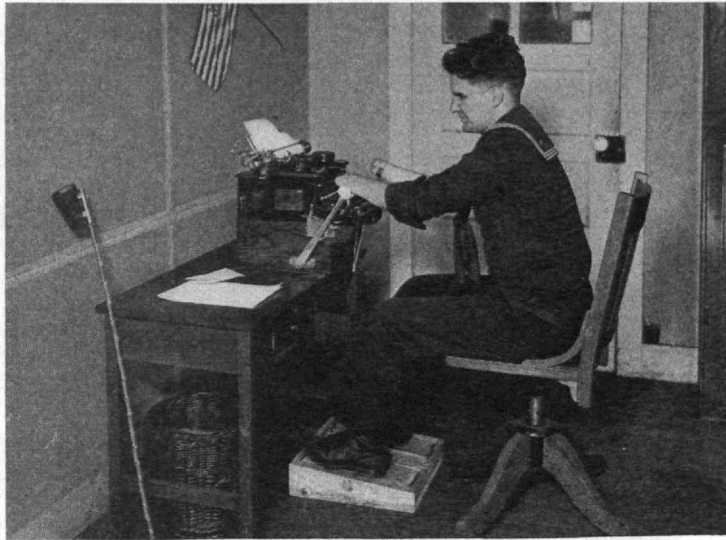
When the American Red Cross turned the institution over to the Veterans' Bureau on January 1, 1922, the writer came to Detroit, where an interesting experiment was being tried under the auspices of the Junior League and financed by the Detroit Community Fund. Instead of having separate agencies for the blind, the crippled and the deaf, all efforts in behalf of the handicapped are centered in one bureau. This agency endeavors to assist all those who are in any way physically handicapped. The coöperation from the large factories is splendid. The employ-



*Blind soldier receiving instruction in reading by touch
Blind sailor learning how to write raised characters*

ment department in almost every big concern in Detroit willingly assists in the reestablishment of blind, crippled, or deafened individuals. Of course, the larger concerns do this automatically for any of their own employees who are maimed while on the job, but the Detroit League for the Handicapped operates as an employment bureau serving the smaller concerns, which do not in themselves maintain extensive specialized employment departments.

Probably every man who reads this article, if he had been asked the question before reading it, "Would you employ a blind man in your shop?" would have answered, "Certainly not." Unfortunately, for many years to come, we are going to have blind and crippled men and it is infinitely saner, more economical and more humane to absorb these handicapped individuals into the industrial world than to leave them on the sidewalk as beggars. At first thought, it is only natural to feel that such handicaps are insuperable, but



Crippled, blind and partially deafened sailor, who has learned to operate a typewriter especially adapted for his use

experience of the past twenty years has clearly demonstrated that such handicapped individuals, *when rightly placed*, are no detriment to the efficiency of an organization. To a very considerable extent, these men realize that they cannot do many things well. The result is that they devote themselves to their particular job with a faithfulness which makes them acceptable workmen. My hope is that some men who have never thought of this before may be prompted to

be a little more lenient in their attitude when they are called upon to decide whether they will or will not allow a handicapped man to work in their shops.

I close as I began. None of us, in this day of rushing automobiles, know when our turn may come. Any of us may some day be blind or crippled. Helen Keller truly said some years ago, "An even greater curse than blindness is idleness." Let us all strive to be more humane in our attitude toward the man who is maimed in the battle of life and give him another chance.

The Newfoundland Ships

The Institute lends aid to a fleet of distressed young vessels

Few of those who traverse the granolithic corridors of the Institute nearly every day of their lives realize that on the second floor of the Pratt Memorial there is a temporary ship hospital, the sight of which will well repay a visit. The sick bay is in charge of Surgeon George Owen, '94, and will be operated during the convalescence of a number of baby orphan ships and until such time as these orphans have found a home. The circumstances are these:

As every one knows, life on the Newfoundland coast is a precarious thing at best. Many fishing ships set bravely forth on the day's work. They do not always return. Boys must soon become men and even while still boys their play is the play of men. The lads of Newfoundland have little time or inclination for tennis, squash or bridge whist — the summer is too busy and the long winter nights encourage less idle occupations — so through their long period of enforced idleness they play as best they may — and their play is the manufacture of ships.

When they finish, the ships are a joy to the eye or the nautical instinct. These ships are not clippers nor palatial yachts but stern models of the entirely utilitarian vessels used by the boys' fathers. The decks are spartan; a tiller, a hatch, a coil of rope are all the ornament. The bottoms are beautifully made of plank, riveted on to a frame work identically like the real ones. The rigging, too, is correct to every tackle block. And best of all, these ships can sail, not merely the un-

rippled waters of a Frog Pond but the bitter edges of a storm racked bay.

During the summer of 1923 a bad season hit the little colony of Fleur de Lis in the Sainte Barbe District at the northernmost extremity of Newfoundland. The wolf pack, whose leaders are poverty and hunger, is never far behind the footsteps of the Newfoundlander and the stumbling block of a single bad season may well throw him beneath their jaws. Destitution faced the village. As one of the means of recovering, Dr. Grenfell suggested that a model fleet of twelve of the baby ships make their way to the United States there to be sold. Twelve set out, but eight reached Boston — the rest having found ports on the way. Staunch as these ships were, able as they are to weather the noisy sea, they were not strong enough to escape damage at the hands of ambitious freight handlers, slight damages to be sure. Accordingly they put into the harbor offered by Professor Owen for repairs. There they repose in their full three foot majesty, their minor contusions and sprains treated and cured. Now they await their buyers.

As has been said, the workmanship is excellent. Professor Owen has stated that considering the fact that these Labrador builders had probably no tools other than a hatchet, a jackknife and a hammer, their craft reflect vastly more credit on the makers than the highly finished, strikingly attractive, products of Technology's completely appointed workshop.

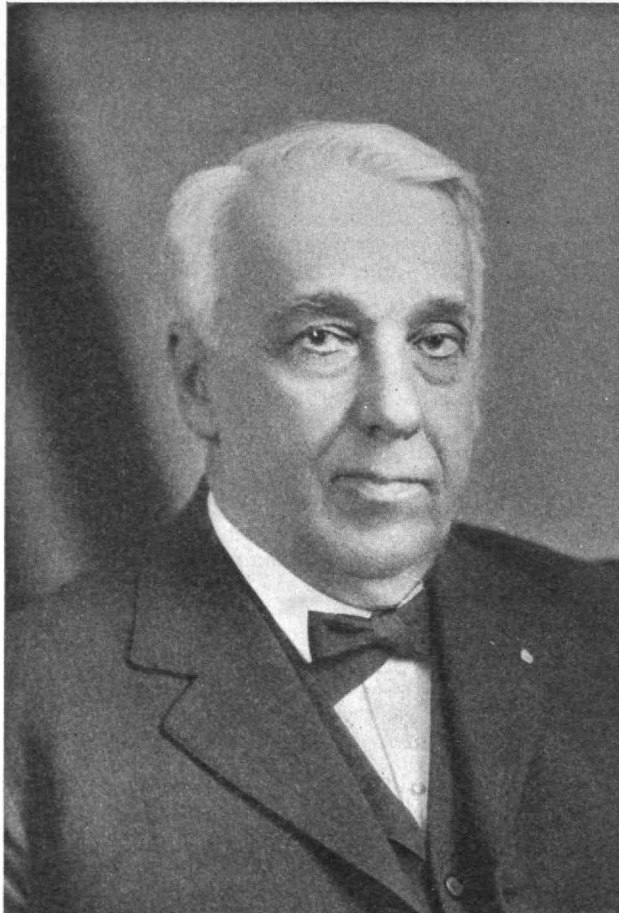
"Optimism"

Spoken Advice to the Assembled Alumni at the Annual Dinner

It is a great honor to be asked to address so distinguished a gathering as the Alumni of Technology. In fact, had the invitation been sent me by anyone other than my dear friend Elisha Lee, I am afraid I would not have had the courage to be here tonight. But a request from him is a command.

Of course, you all know that I live in Philadelphia — still as much a Quaker City as Boston may be a Puritan City. My family tree has been a mere stump, the remainder of it having been lost prior to the arrival of my grandparents in Philadelphia more than a century ago. Can you wonder that at times I have had great concern as to just what might be in store for me in the future, or to which particular tribe among the many races of mankind I belong? No city directory can show my family name in its columns excepting those of Philadelphia and Los Angeles, and they because I reside in one city and my son in the other. Years of distressful thoughts I have borne bravely, feeling that some day my mind would be relieved of this anxiety. And it came to pass that at a recent dinner of the New England Society in Philadelphia we were addressed by a beautiful and educated lady from the South. Preceding her address a New England educator solved my future by relating a story of his little son, saying that a certain relative of the family living in Vermont could never go to Heaven, first, because he used tobacco and, second, because he voted the democratic ticket. I am free of both these vices and therefore rejoice. But as to my tribal origin, quite often, when observing the great progress that is being made by the Jews in America, I have tried to ally myself with them. I never seemed quite to fit, but this talented lady (who, by the way, is an ardent democrat, and will therefore go to Heaven sure, abiding as she does South of the Mason and Dixon line and not in Vermont) succeeded in putting my mind at rest. She proved to the satisfaction of all that thirteen was a lucky number for Americans. In fact, she convinced us that everything we have ever done, from making the American flag to the spelling of Woodrow Wilson's name, consisted of thirteen parts. She then told us, all Puritans, myself among the number, that we were Israelites, and furthermore proved by the Bible itself, beyond all

By SAMUEL M. VAUCLAIN
President, Baldwin Locomotive Works



Phillips Studio

SAMUEL M. VAUCLAIN
The President of the Baldwin Locomotive Works, who was principal speaker at the Alumni Dinner on January 3

possible doubt, that all Jews were Israelites, but that all Israelites were not Jews. Just where I came in I did not question, but of one thing I was quite sure. I belonged and was a close relation to those Israelites of America who contribute so much to its wonderful patriotism and prosperity. Do not worry, my friends, that all New Englanders are Israelites. Environment

is everything, as is fully demonstrated by the fact that in Salt Lake City all Jews are Gentiles.

With my tribal origin and future abode definitely settled, with your permission I will begin the imposition of the evening.

To what extent Massachusetts Tech has been responsible for the greatness of these United States of America can only be estimated. But its contribution is never mentioned except with the greatest appreciation for those professors who have been responsible for the education of the men of affairs represented by those at this gathering tonight. My earliest contact with the Massachusetts Institute of Technology was during the last year when Matthew Brush was a student. Dear old Professor Lanza was his preceptor and his friend. His command of mathematics was wizard-like and inspired confidence in him as an authority. My failure to secure the services of Matt Brush for the Baldwin Locomotive Works

was no doubt due to its insignificance in the world's affairs at that day, but at least I had the honor of offering Matt his first job after graduation. I am sure he chose wisely, not only for himself, but for me as well. Had he accepted my offer he would no doubt tonight be your speaker. But no matter; we both have had all we could do and do well, and both rejoice that Professor Lanza is still on the pay-roll of the Baldwin Locomotive Works, and will remain there until he is called to the Great Beyond. His teachings at Technology bore fruit, but his field of usefulness as Head of our Calculating Department seemed greater, and his knowledge and judgment will remain an asset to the Baldwin Locomotive Works for many years to come.

My subject for this evening is "Optimism." At first, it may not appeal to you, but I trust when I have finished my very short address, you will all be as full of hope for our future greatness as is your speaker. Ordinarily, the term optimist has been applied to those

constantly endeavoring to impress their hearers with the possibilities of the future, or who are never without a pipe-dream of some sort on wonderful creations, deeds of valor, or successes in business, far beyond the power of the average individual to accept as at all possible, or even probable.

True optimism does not deal in the chimera of an impossible future. Optimism is merely an effective term for confidence. I remember being asked several years ago to suggest a suitable man for the position of superintendent of motive power on one of our great railway systems. I did, and notified my friend that I had done so, and that he might in due course be offered the position. A month passed and nothing happened, so I wired the president of the road for information. His reply came quickly, "I will see you in Philadelphia." He came, and with a peculiar smile of pity said, "The Man you recommended has a wooden leg." To which I quickly replied, "Yes, sir, I knew that, but he hasn't got a wooden head, and it is a head with brains in it that you need regardless of legs." The result was the instantaneous reply, "I will hire him tomorrow," and he did. An optimism born of confidence that my friend would succeed caused me thus quickly to come to his support. He was a success.

No one can be very optimistic unless he has confidence in his own ability to surmount the troubles and problems that are constantly presenting themselves in an advancing career. I remember in my early days I needed a house badly, a little home for my family to reside in. Our joint capital was just \$25.00, but I had a good face in those days and a great amount of confidence in my ability to do anything. I was optimistic. So I bought a plot of ground and built a house, not on the \$25.00 I had to start with, but on optimism that never has failed me. I will never forget the crucial test. I had gone to the place early on Thanksgiving morning with a wheelbarrow, pick and shovel to do the necessary landscape work. I had a large payment to make as soon as the roof was finished, and I saw that the roof was nearly on. I realized that my finish as an optimist was at hand; but no, the angle of the roof was wrong. I sent for the builder. He begged indulgence. I showed him how to fix it cheaply and firmly, stating that I would pay him no money until it was fixed. That night it snowed eighteen inches, and no work could be done on the roof until spring. I was more optimistic than ever when I saw that snow, and realized then that the Lord is always with the optimist.

The man who puts things behind him as fast as they rise before him, who always feels confident that he can put them behind him, always cheerful, always kind and gentle to others, always extending the helping hand, is sooner or later destined to be called an optimist.

Now wherein lies this remarkable ability, tact or talent? Is it due to a course in any of our advanced institutions of learning or to some natural inheritance from an ancestor of a recent or remote period? Have you ever tried to reason this out? Would it not be impossible for the youth of the land to learn about and absorb the variety of improvements, in the arts and sciences, engineering accomplishments, both civil and mechanical, the electrical kaleidoscope of the last twenty years? Surely, no human brain could be gorged with so vast an amount of knowledge in the short period allotted to human existence.

The Lord has provided; at least optimism, born of sound reasoning, makes the pathway to fame and fortune much easier for our youth today than when we

were young. The children of the present day are born with the necessary power of discernment to enable them to grasp quickly where we are leaving off. It was Edison's optimism that gave us electric light, but while he was laboring without rest, there were others all over the world struggling in like manner to give the world dependable light. The same was true when transportation required cheapening. The locomotive was born and brought into successful use, not by one person alone, but by many minds in various parts of the world who, without knowledge of what was being done elsewhere, produced this world servant, which has been and is still being perfected in every civilized land by men whose brains and achievements have made optimists of them all.

We could record the same of the steamship, the propeller, the turbine, and last and most important, the internal combustion engine. This improvement came to us only because the brain capacity of our younger engineers had acquired the optimism necessary to refuse defeat. Success came, not in one lonely spot in this great world, but seemed simultaneously to burst forth in every quarter of the globe where scientific advancement was the absorbing thought of the people.

The flying machine was similarly devised and placed at the service of man. I could name many, many servants of mankind that have grown out of the development of the combustion engine. It will be the locomotive of huge dimensions that will soon follow, thus enabling the self-contained unit of motive power again to lead the world, just as steam locomotives led the world one hundred years ago.

Wireless telegraphy, now so common, the radio which quickly followed, and even more wonderful inventions or discoveries sure to follow, will be taken care of more readily by the youth of the nation than were the more modest and less intricate improvements of bygone days understood by the youth of other times.

We all start business when we arrive in this world without a shirt to our backs. We are similar to each other in all respects excepting disposition, and disposition is controlled and developed by the brain as it develops. There can be no doubt that a close relation exists during all stages of the world's progress between the brain capacity of each succeeding generation and the material developments attributed to science.

There could be no science were there no brains. If a close study be made of the scientific advance of the world during the last fifty years, we would find in the human race a corresponding advance in the brain capacity of our progeny. Surely such demonstrations as are occurring in our everyday life should cause us to be optimistic of the future, and enjoy a confidence in our ability as a nation to keep abreast of all other nations in meeting and solving new conditions.

Optimism should prevail in connection with our affairs of government. The result of the last Presidential campaign proved conclusively that the election of our President, Mr. Coolidge, was not due to the so-called slush fund or any oratorical influence of political leaders. No! It was due to the optimism of the President himself, to his plainly expressed determination to rule the Nation in accordance with the Constitution, to preserve the integrity of the Supreme Court, and to substitute common sense for wild and disconcerting theories. The response to this great man's plain and simply worded ultimatum was its endorsement by the great majority of our people, a people full of optimism born of confidence that could not be shaken.

Capital has also been berated, and large enterprises have suffered in the past from those who wielded the big stick when sitting in high places, as well as by those who labor and whose livelihood depends upon the success of capital. But for only a short period could this continue. Optimism, due to confidence in the future and in each other, has gradually brought about conditions that today promise a prosperity for the next several years far greater than any that has occurred in the past.

The great injury done the railway systems of the United States during government administration, not only to the physical condition, but in the disorganization of personnel, will soon become history. Already we seem to have made an almost complete recovery, created anew the confidence of the public, and the rest has been easy.

The optimist is not a peculiar species. He is ever-present with us. He is, however, of all grades, varying from men who have confidence in everybody but themselves, to those who have confidence in themselves only. The intermediate is the successful optimist, he who has confidence not only in himself but in other people as well, is optimistic of the ability of others to do their part of the world's work as successfully as he may do his own. It is this type of optimism that allows one the use of all his time and energy in the accomplishment of his work. His confidence that other portions of the world's work will be equally well done by others enables him to surmount difficulties that the ordinary person finds impossible.

What matters it to him who has others depending upon his daily labor what the thermometer may register, what the barometer may say of changes in the weather, whether it rains or it shines? To work he must go, and can he not go more cheerfully if he is indifferent to discomfort? It is only when our heart-strings are torn asunder by sickness or death that we falter and feel the true benefit derived from a philosophy of life having as its basis true optimism.

What wonderful personal life reviews could be made of our great men of today. What wonderful examples of optimism could be recorded for our future generations to study, imitate and enjoy!

Today, the bringing back to normalcy of the greater portion of the world is uppermost in the minds of statesmen, financiers, and diplomats of all grades, including those whose whole energies are bent upon the reestablishment of successful intertrade relations to not only be satisfactory but profitable to all.

President Coolidge once remarked that "he who built a factory built a temple, and he who worked in a factory worshipped in a temple." How few people

understand the true significance of these words; they apply to every walk of life, be it a so-called factory, a great railway system, a steamship line or other great enterprise. Has it ever been considered by this Alumni Association in its application to the Massachusetts Institute of Technology, one of our greatest institutions of learning engaged from year to year in the production of talent, in the refinement of that most precious of precious things, the human brain?

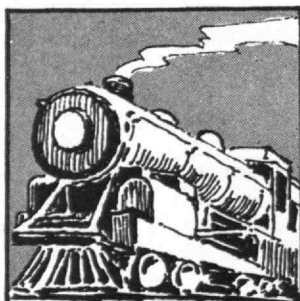
Those who built this great institution have indeed built a temple, and those responsible for the work done here surely worship in a temple. The refinement of brains means the refinement of hearts. They are made stronger, more courageous, more indulgent. Education has been the life blood of this nation. No man can successfully attack our educational institutions, from the country schoolhouse to the magnificent aggregation of temples of learning now common throughout this land.

Is it any wonder that after a life of toil and daily struggle, in which all these things of grandeur at present enjoyed by the American people have been developed, that your speaker is an optimist, or possessed of a philosophy of life based upon true optimism?

Go forth ye men of Massachusetts Tech, rejoice in your Alma Mater, carry her banner always to the fore modestly, but persistently. Be not afraid, but at all times rejoice that your children and your children's children have the promise of being educated in the temple that your efforts have made secure for them. But in your optimism for the future of this great institution of which you are so justly proud, see to it that those who worship in the temple, who are to impart knowledge to the young and send them forth to battle with the world's problems, devote their time to the requirements of the hour and not those of the past. A careful pruning should be made of the requirements of a decade ago so that more time may be given by the student to the absorption of knowledge necessary to meet the requirements of the hour.

Those who desire to sacrifice their lives to the cobwebs of the past need no assistance, but those of us both young and old who desire to exist among the stars of recent developments in all the world's activities should receive the strongest possible assistance from our institutions of advanced learning.

To you, the Alumni of the Massachusetts Institute of Technology now gathered before me, may I state that it is my hope that you will cultivate optimism, embrace it, enjoy its health-giving powers, and forever see to it that your Alma Mater not only keeps abreast of the times, but vigorously investigates and explores the future, and thus becomes a true temple, a workshop of the world?



"Emotion"

*The Institute's Senior Professor speaks at the Alumni Dinner
on another requisite for a full life*

Your hearty greeting removes any apprehensions which I may have had. When the invitation that I speak here tonight was originally made, it was suggested that the Alumni would like to hear from the senior professor. This appeared to be somewhat ambiguous; a forecast of future happenings. Let me therefore assure both friends and critics that nothing is going to happen. It will take the combined action of Providence, the Executive Committee, and the Carnegie Foundation to prevent me from being senior professor for a considerable time to come. I am senior professor, not because I am the oldest professor of the faculty, but because the others are younger!

The reason why I accepted this opportunity is because of my affection for the Institute. This affection is all-comprehensive. It extends from the power house to the dormitories and the more distant Rogers Building; it includes the recitation rooms, laboratories, libraries, and the faculty dining room; it embraces students, faculty, janitors, alumni, the corporation, and above all the noble founders of the institution; it ranges from the massive dome to the dusty Sahara to the west of us and the pebbles on the court-yard beach. It includes everything except the faculty rules!

This term "affection" is also an ambiguous statement, for you may rightly say that if my affection were sincere and genuine, I should refrain from addressing you. You are therefore entitled to an explanation.

When a member of the program committee asked me which of my lectures on Political Economy I intended to deliver this evening, I said: "Dennie, I shall talk on something that you know nothing about." To talk about affection before an audience trained as engineers and scientists involves considerable risk.

Affection is based on emotion, and what has emotion to do with the curriculum of your training or your professional pursuits? You are the offspring of logic and reason, and if you ever had an emotion, some of you may think that the Institute did its best to suppress it.

But emotions do play a large part in our lives. I have just returned from Chicago, and in taking the train I glanced over the news-stand to see what I should read on my way East. I noted a magazine called "Psychology" whose cover was as gorgeously and immodestly illuminated as those of all journals which we select for our family libraries. This proved to be a very stimulating and interesting magazine. It was chock-full of emotion and there was not a single scientific formula from cover to cover that would help a student to pass an examination. It was singularly free from all taint of logic and scientific reasoning.

I received great comfort from its pages. Of special aid for this occasion was an article, "How to Combat the Octopus of Fear"; and there was another, on successful business talks, and finally there was an article, "Emotions which have Helped Me."

Emotion has contributed to the life of the Institute. It inspired Litchfield to create your folk-song. Emotion enthroned Rogers steps as the Stonehenge altar of tribal gatherings, and also created the war-cry of Tech — slightly profane to be sure, but simply the effort of youth to conceal its real emotions. As students generally select the tallest man in the class to call "Shorty," so they describe Paradise by a briefer and more familiar term.

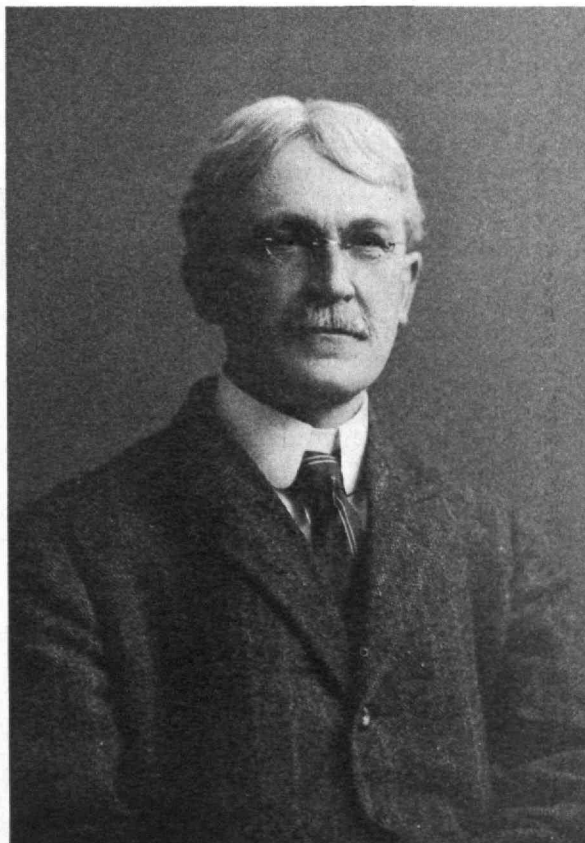
By DAVIS R. DEWEY

Head of the Department of Economics and Statistics

I have always taken great interest in a balky horse. A balky horse is probably the most perfect example of emotion that the world affords. To me it is a far more interesting phenomenon than a smoothly running automobile with its nicely adjusted gears and regulated engine. The processes of the latter, based upon principles of scientific reasoning, are perfectly clear and excite no wonderment. The balky horse, however, is a creature of mystery and provokes our profoundest speculative inquiry.

And so, too, a balky student is to me an object of great interest. It would not be courteous for me to say to this audience that he is *more* interesting than the student who has a record of Credits and Honors; but the latter is not a problem; he runs along smoothly; he excites admiration, even awe, but he lacks emotional interest. The former, however, is controlled by emotion, often concealed and difficult to uncover. He challenges our interest.

By balky students, I am not referring to indolent or lazy students. A balky horse is not necessarily lazy; it is suffering from its concealed emotions. A lazy student has no emotions and can be easily dismissed from further consideration. One of the most difficult problems in education is the right treatment of students who are possessed by strong individual emotions, who chafe under restraint by others, and who will not fit into a standardized curriculum of study.



DAVIS RICH DEWEY

*Senior Professor of the Institute who was a speaker
at the Alumni Dinner on January 3*

To provide education for the mass, and at the same time allow for the multitude of individual characteristics and varieties of bias, is a task which our schools and academic institutions have not yet satisfactorily met. Whether the Institute can do more than it is now attempting to solve this problem I am not prepared to state, but my affection for the Institute is in part — perhaps I ought not to say it — because I have had so many balky students.

But affection for the Institute rests upon a stronger basis than regard for balky students. It is prompted by the evidence of the constructive imagination of the founders of the Institute. Technology was not founded in the chilly atmosphere of pure reason alone. That atmosphere was illuminated by the bright rays of imagination.

There was little apparent demand for this institution, its type of education, and its graduates, at the time it was established.

We welcome the benefactions of those who make systematic and cautious investigations and surveys of the educational needs of the country and bestow their gifts accordingly. We appreciate their confidence in the integrity of our purposes, as witnessed by past accomplishment. But how differently are we moved and our hearts stirred by evidence of faith in work yet to be performed!

Rogers, who conceived the plan, and the small group who sacrificed to make his plan possible, had no past accomplishments to justify their creative conception and sacrifice. Their imagination and faith penetrated into the future. It took a quarter of a century to justify their faith, and now, after more than half a century, how magnificent are the results!

But we cannot stop here. How many educational institutions, to say nothing of religious and social agencies, which have ideals at their birth and are reared in adversity, later when the ideals become accepted, settle down to an orderly routine of life, performing their daily tasks to satisfy the needs of the present. This is a useful service. It commands our respect, but does it excite our deeper emotions?

The educational needs of the present have changed from those of 25 years ago. You Alumni saw such a change and were alert to recognize the need of providing industry with men trained in the elements of business procedure, as well as of engineering principles.

*The
Cartoonist's
Version*



*Professor Dewey
in imitation
wood-cut*

This action showed that the constructive imagination of Rogers and his associates still survives, and it is my hope and belief that your faith will be justified.

We should not, however, rest upon past or present accomplishments. Who can tell what will be the educational needs of our youth, a quarter of a century hence? Have we the imagination to create the picture?

It is sometimes said that affections have their deepest roots and produce their choicest fruits if planted in the soil of adversity. My association with the Institute goes back not to its darkest days of adversity, but to a period of adversity when President Walker personally approved all bills, and gently cautioned me not to buy too many books for the Library.

We cannot now claim that we are living in adversity — perhaps I should rather say, not in *darkest* adversity! And I do not like to believe that adversity is always a prime essential for the planting of ideals and the rearing of the offspring of imagination. The task may be doubly hard, but I am convinced that you share with me the conviction that it should be our constant effort to forecast future needs as well as to perform the duties which the present imposes. The treasure which lies behind the veil which separates the future from the present excites our deepest emotions, and may we not in our search for it find the inspiration which creates abiding affection?

At the outset, I stated that I told Dennie that I should speak on something concerning which he knew nothing. I did him injustice. He too has a proper amount of emotion which he allows to modify his scientific processes and reasoning, and for this I wish to express my tribute of appreciation.

And I also recognize the evidence of emotions on the part of all of you, whenever the name of the Institute is uttered. It deserves your affection, not because of a brief association within its walls; not because of friendships formed in the ardor of youth; not because of memories of class achievements and rivalries in sports, or pre-Volsteadian reunions; not because of the calculating counsel of your former teachers; but because of its ideals of reconciling the passions and emotions of youth with the serious tasks of manhood.

May your affection grow deeper and deeper and continue until you on your part earn the epithet of *senior alumnus* of the Institute. May each one of you in turn share that honor and distinction!

The Value of Precedent in the Practice of Architecture

An address delivered before the fifty-seventh annual convention of
the American Institute of Architects

In the words of the cautious Mediæval Schoolman, "Distinguo."

By RALPH ADAMS CRAM
Former Head, Department of Architecture

In place of the beautiful gods of Olympus and the kindly shy spirits of the woods, or of the Sacramental

The question is not one that admits of a categorical answer. "Value," where, when and to whom? All is relative, even Revelation, and wise men knew it even before Einstein—about 2000 years before, or earlier. Precedent was of little value to Anthemius of Tralles, to William of Volpiano and to Suger of Saint-Denis, but it was the stock in trade of the protagonists of the Pagan Renaissance. If civilization has unity, beauty, the spirit of adventure, joy in life and *faith*, one need not stop to think about precedents, or seek them out. Beauty and significance will pour into the world through the arts, and the artist (all free men then are artists) cannot help himself. If I have to create a monastery for Benedictine monks, precedent is what I must build on, but if the problem is a movie theatre, a Christian Science temple or a storage warehouse for confiscated "hooch," precedent is measurably ineffective as a stimulus.

I protest that the customs of the past, whether they did or did not rely on precedent, and how much or how little, have no bearing whatever at the present time. However varied the types and phases of civilization, they all hang together, they developed in a sense one from another, possessed actual identity in their sense of major values, from the time of Pharaoh Akhanthan, to that of the Emperor Charles V, but what we have had since is a new thing with neither resemblance nor relationship to what had gone before. If there was civilization in Egypt, Greece, Rome, Byzantium, Moorish Spain, the Middle Ages, the fifteenth century—and God knows there was—then we have it not, and if ours is a real civilization, then there has been none before. What we are involved in today is a brand-new creation brought into being by coal, steam, printing, gunpowder, Protestantism, neo-Paganism and democracy. The question is not whether it is good or bad; it is different, lock, stock and barrel, and because it is so blazingly, so staggeringly different, it sets itself apart from all history and must be dealt with *de novo*.

There have been eight great art-epochs in the history of Europe, each the perfect expression of a civilization that varied in degree from the others but always notable and sometimes supreme. In every case there was at root these qualities I already have cataloged: unity, beauty, spirit of adventure, joy of life and faith. The present time is marked by the opposite of each one of these qualities. The result is spiritual, social and material chaos. In each one of the eight epochs I have named the creative artist was driven by the dynamic of his time to do what he did and he needed to be taught nothing but his craft. He was not driven to deny the high gods or break the Ten Commandments in order to achieve "self-realization"; he was modest enough to know that the same "self" was probably not worth expressing anyhow, and of slight interest to his fellows. He had a bigger thing to manifest and that was the corporate soul of the time. This was the impulse, the form followed by nature.

And now? Well, what have we for inspiration? What are the great, universal motive forces of society? Passionate desire (generally satisfied) to own an automobile, a Victrola and a radio set. A deep yearning for the movies, jazz music and really good bootleg gin.

and splendid worship of the Catholic Church, we have the Fundamentalists, the W. C. T. U. and *Zion's Herald*. Where once were Argonauts and Crusaders and Conquistadors and merchant adventurers, are now big business, high finance, efficiency experts and advertising. The craft-guild and artist-guild have given place to the predatory trade union, the Rotary Club and Odd Fellows Hall. Congress and the State legislature and the city council and the ward boss have ousted statesmen and patriots and great leaders of men. Main Street triumphs over Thebes and Athens, Venice and Mont Saint Michel and Bruges, while George F. Babbitt sits in the high places of Pericles, Dante and Sir Thomas More.

This sounds like an indictment, but I mean it for a description, and its object is the emphasizing of differences. Of course we plagiarize, barefacedly, because at present there is little else we can do, and just because of this difference that exists between our own time and the others that have gone before. There is no longer any group of powerful influences dominating society. There is not even one (if we except safe evasion of the Volstead Act) and it is out of these universal impulses that styles derive, not from the genius of one or more great artists. This I believe is absolutely true of architecture and measurably true of all the other arts. Is there any style on earth prior to that of the Academic Renaissance that we can trace back to a specific creator?

The reason is not far to seek. Art is, in the second degree only, a medium of self-expression, varying to a certain extent between one art and another. Music, poetry and the drama are the most personal and the least dependent on spiritual and physical environment. Painting comes next, but here the universal force takes greater control. Sculpture is in the next place, and last of all comes architecture, the great art of communal expression where the personality of the architect is of least importance and in many cases a positive intrusion. I do not mean that here personality is of no moment; it is of great moment, but I do mean that in great architecture the architect must be rigidly subordinated to the art, the art subordinated to, and made expressive of, the time, or, if as happens now, there is no coherency in the time, then to whatever spiritual force may be operating through the concrete thing the architect has to house, and so housing, manifest in visible form, beautiful, significant and inspiring. Plagiarism is condemned in masters of other arts and they generally refrain from it. The dear man who has started this trouble asks that it be condemned also in architects, but I maintain that here also is a difference, for the revelation of personality that is tolerable, nay, even desirable, in a Debussy, a Georges Bernard Shaw, a Cézanne, an Amy Lowell, is not a desideratum in the case of an architect. We do want to feel, rather unconsciously, the varieties of genius between, say, the master builder of Bourges and him of Seville Cathedral or Westminster Abbey, but only in subordination to the great force that was driving society when these churches were built, and to which the nameless, unchronicled builders bowed the head. So then, we have

(from my point of view) two differences conditioning our problems; the complete loss of unity and driving force in our society, and the fact that the architect deals with an art so great that it subordinates personality and makes him dependent on this very unity, this irresistible driving force that we have lost.

Stated so, the case seems rather hopeless, and yet we know it is not, for in spite of plagiarism — or is it because of it? — we all know perfectly well that there is more really good architecture being produced in America today than ever before, and far better than that of any other country in the world for the last 300 years. Evidently there is a fallacy somewhere (I deprecate attempts to find it in my reasoning) and I think it lies just here. In spite of the fact of our heterogeneous estate and the inadequacy of the personal equation as a substitute for world forces, there do still remain enclaves of substantial unity, potential energies blurred to the sight by advertising signs and silenced by the "blurb," but nevertheless real, potent, vital, and it is these forces that are acting as of old to inspire the architect and make him a creator, or rather a channel of artistic revelation.

Let me take three examples. The first is the human family. It is as old as the Garden of Eden — or just after it; it is not a new thing needing a new form of expression. I grant you that if trial and eugenics and the divorce courts and "the need of self-realization" have their way, this statement will be no longer true — but in that case it will not matter, for society will come to an end and with it architecture. In the meantime, and in spite of the newspapers, the real home still exists, and it is finding its perfect expression in our domestic architecture. I do not know when there was any that was better than what is now being done around Philadelphia, and in southern California, and by groups of architects in New York, Boston and the Middle West. Did they fall back on precedent? Yes, they did, because it was their business as good and faithful architects to do so. Did they plagiarize? No! They took over the old motives, Colonial, Spanish or what not (frequently the latter) and transmuted them into something more than adequate by feeling the push of the inspiring force of the decent home and then by adding just enough of their own fine and varied personality to keep their work from becoming standardized like a schoolhouse, a bank or a Carnegie library.

The second example I would choose is that category of building that is associated with real learning. The sort of efficiency-expert, predigested learning engendered by H. G. Wells and hypothecated by a myriad other compilers of "Outlines" of this, that and the other, has rather of late overshadowed the real thing, but still it exists, though hidden. When this real learning becomes operative its creative energy comes into play and again the architect has something to express except his own sacred personality. Does the demand for originality, for the striking out of some new style come here into play? I think not. If I am working at an old university, where the scheme of education, the scholar spirit, the cultural tradition reach back without a break through the Colonial college to Oxford and Cambridge and the Mediæval centers of learning in Europe (as they do, all of them) I know that my business is to subordinate my own fads and fancies to this dominating influence, to pick up the old tradition of college architecture that belongs to our race and then adapt those forms, so recovered, to whatever new conditions may have come into being and are not in

themselves inconsistent with the central idea of higher education. Where should I go then for inspiration (I do not say precedent) but to the great old work of our own blood-ancestors in Oxford and Cambridge, or to the allied but racially alien art of Salamanca, Heidelberg or any other great college of the great days? Nor does this mean just Gothic; there is good Georgian building in the English universities, and good Renaissance in Spain, if, as sometimes happens, the Gothic mode is unfitted for a particular temper or place. To precedent architects have returned at Princeton, Yale, Harvard and scores of other colleges, and there is no more vital modern work anywhere than they have done along this line — and without plagiarizing, rather by an intelligent and sensitive adaptation that has made Gothic and Georgian and Colonial living styles again. "Out of key with Modernism?" Yes, thank God, but right in the key of the greater and lasting forces.

And my third instance is church building. Here even more than in the other two cases, is a dynamic, persisting spirit and tradition. There are many styles, but there is one motive, and I submit that here at least not only must inventiveness be held in restraint, the individuality of the architect submerged, but that there is no other course to follow but to preserve continuity, suggest unbroken history, stimulate by the emotional appeal to inherited older memory through suggestions of ancient and unparalleled monuments. In other words, go back to the great architecture of the great days, and start there, going on, of course, but only by modest stages and in restrained ways, never, under any circumstances whatever, intruding individual personality into a thing immeasurably greater than any individual. Is there any better architecture today than church building in America? I do not think so, and it is good just because it starts from the old work, frankly and reverently. What happens in church building when the start is made from nowhere, except the inner consciousness of the inventive architect, is quite clearly demonstrated in France where modern churches are a scandal to religion and a shame to architecture, though the most offensive example is to be found in Barcelona where a megalomaniacal moron has started a nameless horror sacrilegiously dedicated to La Sagrada Familia.

So I rest on this: that there is no longer a vital, inspiring, directing energy in the world that achieves its outward showing in great art through its sensitive agents, the architects and other artists, and that since this is so, it is a great mistake for us to think that we are big enough in ourselves to contribute what the *Zeitgeist* withholds. If you want plain speech, we are not big enough men to do it. We are not great in the sense in which the master builders of Athens and Constantinople and Venice and Burgundy and Flanders were great. We know more than they, infinitely more — except as to what things are worth knowing.

But (and here is the saving fact) the real spirit, the inspiring breath, still holds in places, and here, if we will, we can find the breath of inspiration we need. Not to invent some new thing like a carburetor or a religion or a philosophy or a new architectural style, but to recover the truths of old arts from their forms and spiritual radiance that emanates from them and modestly, humbly, to try to recreate these forms, not as final ends in themselves, but as recovered truths after long night, facts to hold to, foundations to build upon, even we, may play our part in recovering right values for the world and bringing it about that in the end they shall prevail.

The ARCHITECTURAL BULLETIN

PUBLISHED FOR THE SOCIETY OF TECHNOLOGY ARCHITECTS

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President

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The Ware Portrait

As announced in the last issue of the Bulletin, there was presented to the Department of Architecture on December 5 a portrait of Professor William R. Ware, its founder. The occasion was a department smoker held in the Common Room of the Rogers Building. The students of the Department, together with a number of its prominent alumni, were treated to two intimately reminiscent word pictures of Professor Ware given by two men who had been associated with him while he was at Technology. The first speaker, James P. Munroe, '82, was Secretary of the Institute at that time, so that his duties brought him in touch with Professor Ware in an "official capacity." C. Howard Walker, the second speaker, knew and loved Professor Ware from a quite different angle, as a student reveres his "guide, philosopher and friend." They were both agreed, however, that Technology suffered an incalculable loss when he left the Institute to go to Columbia University.

Mr. Munroe mentioned a number of small incidents connected with the early days of the Architectural Department. "In the beginning," said he, "the Department shared the top floor of Rogers with the Lowell School of Practical Design, an institution largely attended by young ladies who were eventually to become designers of wall paper and oilcloth." The students of the Department of Architecture were naturally distracted from their more serious occupations by the presence of these young ladies, which caused Professor Ware a good deal of annoyance from time to time. Apparently, the early students were just as much boys as are those of today. One of their common stunts was to slide down the stair rail from the top floor clear to the bottom, a practice which was quite feasible until Professor Ware ingeniously caused the introduction of the discouraging little knobs which occur at intervals along the rail even to the present day.

One of Professor Ware's peculiarities, as recounted by Mr. Munroe, and which goes to show that he was considerably in advance of his time, was his aversion to awarding any marks in the courses over which he presided. He was very reluctant, even, to have his students registered in the office of the Secretary, which combined in those days the functions of registrar, bursar, and secretary to the president, claiming that so long as he knew the men who were working in his department it was no one else's business, and so long as he knew that the men were progressing satisfactorily there was no necessity for recording any marks for their work. In spite of these difficulties Mr. Munroe found it impossible not to grow to love and respect the winning personality of the head of the Architectural Department, with whom his relations could never be more than nominally official.

Mr. Walker became more personal in his account of Professor Ware. "Everything that is good in me, aside from what I inherited from my parents, is due to that man," he said. He then went on to tell of the interest taken by Professor Ware in him and in other young architectural students who found it impossible to attend Technology. His wealth of anecdote must have brought home forcibly to his hearers realization of how fortunate was American Architecture to have had such a kindly, able and sensitive soul as one of its pioneers in the field of architectural education.

The Department is to be heartily congratulated upon its acquisition of the Ware portrait, which will serve to keep its original in the minds of the students. It is said to be a remarkable likeness, which is the more remarkable in that the artist, Emil Pollak-Ottendorff, painted it only by the aid of photographs and descriptions given by members of Professor Ware's family.

The inspirational value of smokers of this sort, at which students can become more intimately acquainted with the personalities of the earlier leaders in American Architecture, is beyond determining, and it is to be hoped that the future will hold many similar occasions.

Curriculum Revision

After a warm fight, which lasted for several weeks, the advocates of the two-term system for Technology have triumphed over the three-termers, so that beginning next fall the Institute will again revert to the arrangement which was in vogue prior to 1919. The Department of Architecture in particular is pleased at the prospect, for it will be enabled, through a re-study of the curriculum, to coördinate and solidify the numerous smaller courses which are in reality intimately related, but which have in the past been taught as so many separate and distinct subjects. The courses in Perspective, Shades and Shadows, Office Practice, Descriptive Geometry, Architectural History, and Design will be closely interrelated so that they will practically form themselves into a few larger courses. That the value of these courses will be much increased thereby is quite patent.

Apropos of the above it is interesting to quote from some remarks upon the subject by Alexander Jenney, Instructor in the Department:

"The purpose of courses in architectural construction should be the development of a structural sense based upon sound principles of construction. If this is true then it would seem that the development of a structural sense should be inspired (not taught) in the same way that a sense of character, form, proportion and scale is inspired and developed in design. This development of a structural sense should begin with the first design problems and continue through the entire period of the students' training.

"In the beginning the student should be made to feel that abstract design in architecture does not exist: that it is not possible to conceive of the design of a building without thinking of the materials of which it is to be built. It is not possible to think intelligently in terms of materials without understanding their character and limitations and the principles of construction governing their use.

"The structural sense should be inspired and developed in the same way that the sense of design is developed; by beginning with the study of the simplest architectural elements, to be constructed of the simplest materials, stone, wood, metal, etc., and, as the forms and elements that the student learns to handle in his design become more complicated, so his instruction in construction should become more advanced.

"For example, the first problem in design might be the treatment of walls. The program should state the materials to be used. Before beginning the problem the instructor in design should explain the principles governing the construction of walls, and the meaning of the terms used (bonding, capping, rustication, base, etc.). After the design problem is finished, the instructors in construction should explain more in detail the structural problems involved either by means of a short problem in the drafting room or by lectures illustrated by the design problems supplemented by lantern slides of the construction of typical examples of similar walls. Notes and sketches made by the students and passed in for correction might be substituted for work in the drafting rooms.

"The time at our disposal would probably not permit this to be done with every design problem, but it should be possible so to arrange our schedule as to permit the development in this way of one problem in each term.

"This method would not necessarily involve a repetition of work in the construction courses, for if the student can be made to understand the principles governing the construction of a wall, or post and lintel in his first problems, the succeeding problems in construction would deal only with the newer and more complicated forms that are introduced into the more advanced designs.

"By this method the instruction in construction would become a continuous performance keeping step at all times with the design courses and following through all four years.

"In order to follow out this plan consistently it might be wise to restrain the students in the first and second years in their use of architectural elements and

not allow them to use in their design, elements that they are not capable of understanding as structures. In music a student is not allowed to attempt the rendering of advanced composition until he has acquired the necessary technique. A student should not only be encouraged to acquire a vocabulary of forms but should learn the structure of the forms as well.

"To carry this system into effect would make necessary great elasticity in the construction teaching. The instructors in charge of construction courses should be required as part of their regular work, to study the design programs, follow their development in the drafting rooms, make notes of any new structural elements used, prepare this material and be ready to explain the principles governing the construction of these elements as soon as is possible after the design problems are finished.

"As the designs become more advanced the structural problems, although perhaps becoming more difficult, would automatically become less in number and might be taken care of in the more regular courses in structural design.

"If this program could be carried out through the entire period of the student's training, he should, at the end of his four years, be able to present a thesis covering what he has learned both in design and construction."

Department News

Registration in the Department of Architecture this year includes over 190 students as compared with 155 for last year. Former students of the Department may consider this as significant of the continued efforts which have been made to improve the quality of the instruction and to maintain Technology's high position as an architectural school.

A plan for coöperation with the Association of Collegiate Schools of Architecture was adopted at a recent meeting of the Committee on Education of the Producers Research Council. About a score of leading manufacturers of building materials, whose representatives make up the Council, are to undertake under this plan to furnish lecturers to the various schools of architecture, together with lantern slides and moving picture films illustrating the manufacture and use of their various products. Students in the schools will thus have an opportunity to gain a thorough comprehension of the nature and uses of a variety of building materials. Each school is to have its own films and slides and the material is to be made part of its regular courses in materials of construction. Ten or more schools have already signified their willingness to make an annual contribution for this service.



AN INDIVIDUAL CHRISTMAS CARD

A design by Frank W. Peers, '18, which was included among a number of highly original and pleasing greetings received by Professor Emerson from former students

Professor John O. Sumner, who is in charge of the instruction in that most important course in European Civilization and Art, has just returned to the Institute at the beginning of the second term, and has resumed his lectures. Since last June he has been in Europe on leave of absence.

Professor Emerson has been invited to give a series of three lectures this spring at the Metropolitan Museum of Art in New York. His subject will be "Classical and Mediæval Architecture."

Professor W. H. Lawrence, head of the option in Architectural Engineering, has been, since the first of the school year, teaching constructive design at the Harvard School of Architecture, temporarily taking the place of Professor Charles Kilham who has been conducting the competition for the new Harvard Business School.

It will be of interest to our readers to know that Professor Jacques Carlu is to prepare the scheme for the decoration of Horticultural Hall for the Art Students Ball to be given under the auspices of The Copley Society on February 20. This ball will be attended by students from the various institutions around Boston engaged in the study of fine arts, and will supplant the annual Fête-Charette which has been run for the past few years by the associated efforts of the Departments of Architecture at Technology and at Harvard. The scheme for costumes will be based, not upon the representation of any historical period, but upon the use of certain colors as a part of the general decorative scheme.

For a number of years the Envois sent back by the Rotch Traveling Scholarship have been held by the Rotch Committee and have not been accessible to the general architectural public. A few of them have been hanging in the Boston Architectural Club, but the rest have apparently been kept filed away in a dark closet. It has recently been decided, sensibly enough, to lend these drawings for a period of five years, subject to renewal, to the various schools which are members of the Association of Collegiate Schools of Architecture. The endeavor will be to aid those schools which have the most limited facilities, on the assumption that the larger schools are sufficiently well equipped with drawings of a high grade.

Together with the news of this plan Professor Emerson has announced that the Department of Architecture has available for sale to those interested the following photographs of original drawings in its collection of Grand Prix Envois.

1. E. Brune, Cori, Italy, Fragments Divers au Quart.
2. E. Brune, Cori, Temple Dorique, Porte.
3. E. Brune, Cori, Temple de Castor et Pollux. (Detail of Corinthian Capital.)
4. E. Brune, Cori, Temple Dorique. (Detail of Entablature and Capital.)
5. E. Brune, Cori, Temple Dorique. (Detail of Doric Order.)
6. A. Tournaire, Rome, Forum de Trajan. (Entablement de la Basilique Ulpia, Elev.)
7. A. Tournaire, Rome, Forum de Trajan. (Fragment d'Entablement.)
8. A. Tournaire, Rome, Forum de Trajan. (Entablement de la Basilique Ulpia, Section.)
9. A. Tournaire, Rome, Forum de Trajan. (Detail of Pedestal.)
10. J. L. Chiffot, Rome, Temple de Mars Vengeur. (Corinthian Capital with details.)
11. J. L. Chiffot, Rome, Temple de Mars Vengeur. (Corinthian Capital, plan and details.)
12. J. L. Chiffot, Rome, Temple de Mars Vengeur. (Details of Corinthian Capital.)
13. J. L. Chiffot, Rome, Temple de Mars Vengeur. (Perspective views of Corinthian Capital.)
14. J. L. Chiffot, Rome, Baptistère de St. Jean de Latran. (Corinthian Capital.)
15. Recoura, Rome, Forum de Trajan. (Ionic Capital, front and side elevations.)
16. Recoura, Rome, Forum de Trajan. (Ionic Capital, plan.)
17. Recoura, Rome, Autel et Vase Antique.
18. Recoura, Rome, Autel et Vase Antique. (Detail of Vase.)
19. Recoura, Rome, Autel et Vase Antique. (Detail of Pedestal.)
20. B. Chaussemiche. Forum d'Auguste, Rome. (Façade Laterale.)

The Department is giving the widest possible publicity to the announcement of the two \$300 scholarships for special students which are offered for the scholastic year 1925-26 in the third and fourth years of the course in Architecture at the Institute. The awards will be made from the results of a competition directed by the Committee on Design and open to citizens of the United States of good character, who are between 21 and 28 years of age, with at least two years of office experience. Competitors will be allowed to prepare their drawings wherever conditions conform to the requirements of the Committee, but their drawings must be sent to Boston for judgment. Applications must be received on or before April 11, 1925, and should be addressed to Professor William Emerson, 491 Boylston Street, Boston. The competition will be held from May 23, to June 1, 1925.

In former years many of the leading students have been "specials" and the Department is naturally desirous of continuing this tradition. It has apprised the Editor of The Bulletin that it hopes readers who employ young draftsmen will assist in spreading the news of this opportunity so that the best available talent will enter the lists.

Alumni News

The competition for the new Harvard Business School buildings, which were made possible by the gift of George F. Baker, has just resulted in the selection of McKim, Mead & White as the architects, thus reflecting some credit on Technology as the Alma Mater of Burt L. Fenner, '93, who is at the head of the successful firm. A number of Technology men working in different offices took part in this competition, in which were entered most of the more prominent architectural firms of the East. The drawings submitted in the preliminary competition which was completed some time ago, were hung in the Exhibition Room, Rogers Building, from January 5 to January 10. The final competition drawings were due January 6 and were judged on January 9 by a jury consisting of John Russell Pope and Lewis Ayres, of New York City, M. B. Medary, of Philadelphia, President Lowell, of Harvard, Treasurer Adams, of Harvard, and George F. Baker.

For those of our readers who take delight in the literary productions of modern humorists, we direct attention to the 1922 Course IV Class Notes by George S. Holderness, '22, which appear in the back pages of this issue of The Review.

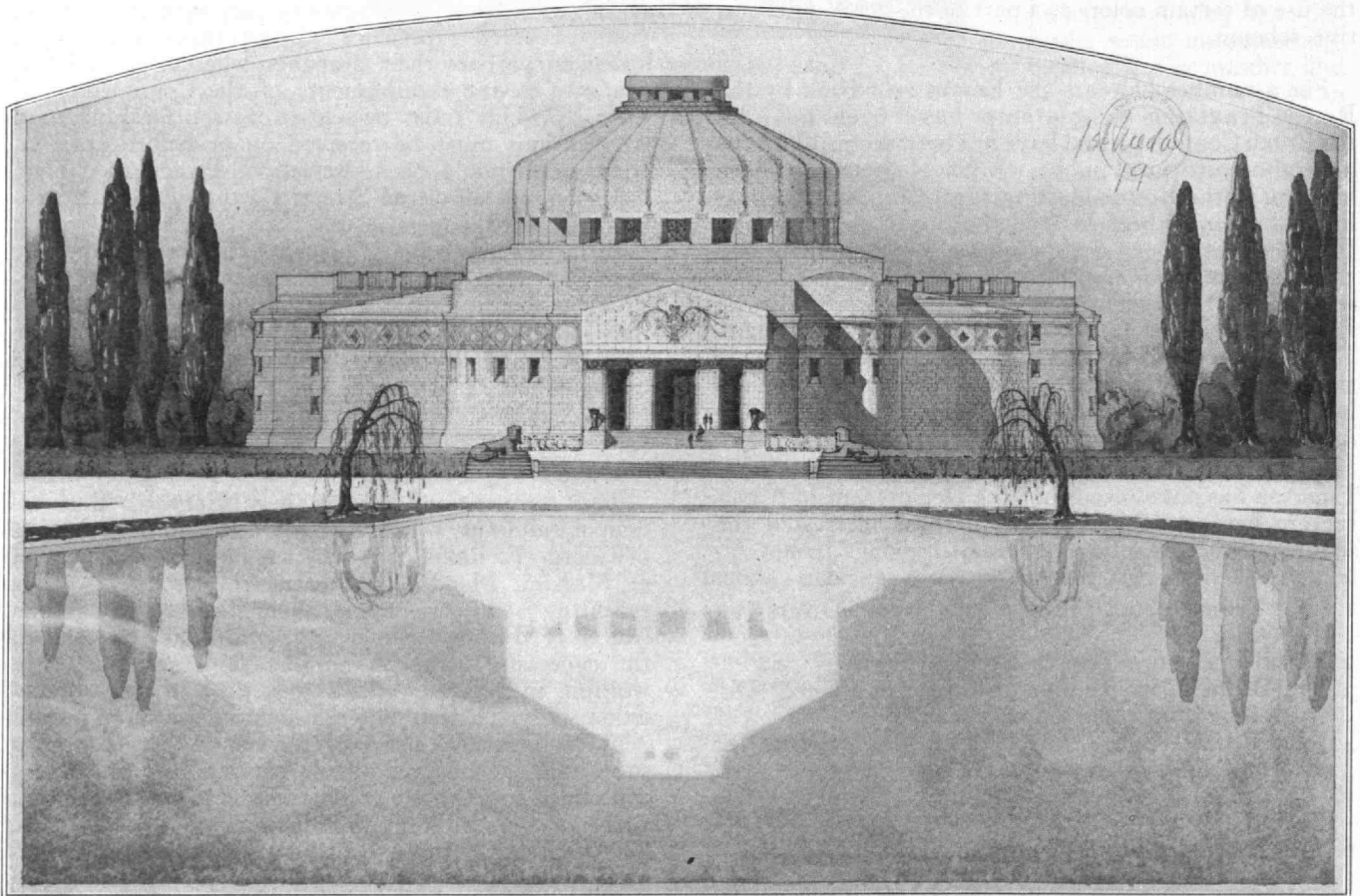
Newspapers of Providence, R. I., contained on December 8 news of the death of John Howard Adams, '99, who was a member of the firm of Jackson, Robertson & Adams. For a year after graduation Mr. Adams spent his time traveling and sketching through England and the Continent, and studying in the Ateliers of Paris. Upon his return to this country he became associated with the office of Peters & Rice in Boston. After serving a short apprenticeship with this firm he entered the office of McKim, Mead and White at a time when that firm was carrying out many of its most important and monumental commissions. He remained in this office for eight years.

In 1908 Mr. Adams came to Providence and practised for himself until 1912, when he became a member of the firm of Jackson, Robertson & Adams, in which he remained until his death. He was a member of the American Institute of Architects and was Secretary of its Rhode Island Chapter. Said F. Ellis Jackson, his partner, in a letter to Professor Emerson: "How well you knew my partner, Howard Adams, I am not sure, but if you have known him even slightly, you will understand how greatly he will be missed by those of us that saw him most."

Our readers will be sorry to know that Isidor Richmond, '16, holder of the Rotch Traveling Scholarship, was ill in London with pleurisy for a period of about two months last fall, and lost thereby much valuable time from the period covered by his scholarship. We are glad to say, however, that he is now in good health and is carrying on his work enthusiastically. From a letter received by Mr. Clarence H. Blackall in December, it appears to be Richmond's intention to spend the winter months in Spain.

Lewis R. Abbott, '99, for many years connected with the firm of Shepley, Rutan & Coolidge, 122 Ames Building, Boston, has been taken into the firm which has been reorganized as Coolidge, Shepley, Bullfinch & Abbott. Charles A. Coolidge, '83, is the senior member.

Since our last Bulletin went out, your Secretary-Treasurer has been receiving a goodly number of annual dues from the members of the Society and wishes to take this opportunity to thank those who have contributed. There is still a long distance to go, however, before we can be sure of making both ends of our budget meet, and we wish to again urge those who have not so far contributed, to add their bit by sending in their checks. As an added inducement it might be stated that the amounts may be, according to law, deducted from taxable incomes.



A DESIGN FOR A CREMATORIUM

A prize winner contributed by Jesse W. Green, '25, in a recent conjunctive problem with Harvard and the Boston Architectural Club, in which Technology took all the medals

End of The Architectural Bulletin. For architectural advertising, see pages 216-219

TECH MEN IN THE PUBLIC EYE

Robert George Hall, '97

Preliminary experience of responsibility, and graduation from the school of hard knocks, prompts an appreciation of the benefits of specialized education that is seldom realized by those who pass, by ordinary methods, from school to university. Education by the former process is likely to be enhanced by inquisitiveness and intensive application, both the result of a maturing outlook on life. Thus it was with R. G. Hall, of British ancestry, who when eighteen arrived in the United States from Ireland, the land of his birth. Business experience at Pittsburgh for four years acted as a spur to ambition; and in 1893 he entered the Massachusetts Institute of Technology, where, by combining the chemical course with the mining course, he was the first to map out a grouping of subjects that has since formed the schedule basis for prospective metallurgists. While there, he came under the fine character influence of Dr. Robert H. Richards and the precise scholarship of Dr. H. O. Hofman. Among his teachers was Dr. H. M. Howe, who lectured on the metallurgy of copper and iron.

After being graduated, in 1897, Hall became assistant chemist to the Pueblo Smelting & Refining Co., at Pueblo, Colo. Between then and 1901 he rose to the position of chief chemist and chief assayer. Followed experience in the metallurgy of gold in the San Juan district and in the Cripple Creek field, during that interesting period marked by the displacement of chloridizing by cyaniding. Responsibilities included the management of the property of the American Gold Mining Co. at Ouray and others in Colorado. In 1905 he became assistant superintendent, and later general manager, for the United Zinc & Chemical Co., operating in the Kansas natural-gas belt and at Leadville, Colo., handling Western zinc ores by magnetic concentration, then a new process, at the Yak mill, in Leadville, and producing heavy chemicals and metallic zinc in Kansas. It was an interesting period in the metallurgy of zinc, marking the earlier attempts at a zinc smelter to handle high-iron ore in retorts. Practice in Belgium had been successful for several

years, because of superior equipment; and it was not until hydraulic methods were adopted in the Mississippi Valley region for the manufacture of retorts that success was achieved in the United States in the treatment of zinc ores containing as much as 15 per cent iron. In this country the U. S. Zinc Co. put in the first of these new retort machines; Hall, for his company, the second. Joplin ores with 60 per cent zinc

and 1 per cent iron; Western ores containing as little as 30 per cent zinc and as much as 25 per cent iron, and Leadville carbonate ores with less than 20 per cent zinc—the treatment problems of all were solved there. During this period, Hall built a zinc smelter at Springfield, Ill., also for the United Zinc & Chemical Co. From 1913 on, Hall deflected his attention to research and investigation on the treatment of complex Western ores and the production of electrolytic zinc.

In 1918 he was appointed to one of the premier positions in the profession, that of resident manager for the Burma Corporation, Ltd., being engaged to apply his skill and experience in an attempt to improve the treatment of the complex ores of the famous Bawdwin mine. A successful process, developed by Hall and his staff, is now in operation. Briefly, it consists of the concentration of the low-grade ores to produce lead-silver concentrate and zinc concentrate, smelting the former with high-grade ore for the production of base bullion. Success, depending on an ability to produce a

lead slag of high zinc content, was achieved. The plans included a method, not yet in operation, for the recovery of zinc from the slag. His work in Burma being completed, Hall returned to the United States in 1921. He is now in private practice as a consulting metallurgist.

Those who have failed in an attempt to find an account of Hall's achievements in the usual directories will appreciate the fact that he is unassuming, and persistent in his efforts to deflect attention from himself. Suffice to say, however, that in addition to being a distinguished metallurgist, the subject of this brief biography is one whose personal attributes reflect credit and honor to the profession of mining engineering.

—*Engineering and Mining Journal-Press.*



ROBERT GEORGE HALL, '97

Subject of a recent biographical sketch in Engineering and Mining Journal-Press

Andrew G. Pierce, Jr., '85

Andrew G. Pierce, Jr., of New Bedford, who has succeeded William M. Wood as President of the American Woolen Company, assured the *Post* today that the passing of Mr. Wood from the active leadership of the company would make no difference in the policy to be pursued in the future. Shy of the limelight, he refused interviews and photographs to newspapermen, but he received the *Post* man today in his office at the Grinnell mill and chatted in a friendly way. He said that no one regretted the passing of Mr. Wood from the active leadership of the company more than he did. For twenty years they had been associated together as president and vice-president. It was Mr. Pierce's father who had been Mr. Wood's guardian when a boy and who taught him the mill business and gave him his first chance in life, so that the relations of the two men have been those of intimate family friends rather than business associates.

Mr. Pierce emphatically stated that no other changes would be made in the personnel than those already announced, as no change of policy was contemplated.

There is a long line of New England ancestry behind the new head of the American Woolen Company, men who were builders of New Bedford, who took a prominent and often a leading part in the industrial life of the city, and as they were blessed with the old New England spirit of thrift and conservatism, the family fortune today is one of the largest in the city.

Mr. Pierce has the plain, frank manner of the old type Yankee, whose word was as good as gold. He does not talk much for he is a man of active spirit, preferring to let his acts speak for him. The three mills that he built up and developed here are a source of great pride and joy to him. He would rather run a mill than do anything else in the world, except yachting. That is his great hobby.

His yacht, which is called the *Palestine*, is the largest and finest in New Bedford harbor. His ancestors far back were seafaring people and although he has developed into a rich and powerful cotton manufacturer, he still loves the smell of the salt air in his nostrils and the sweep of the sea about him. When he is not attending to business (which happens to be only on holidays) he can be found on his yacht if the weather is fine.

He reflects much that is best in present day industrial leadership. He is looked upon as frank, honest, reliable, trustworthy, a man who invites confidence by his frank, hearty manner and love of square dealing. He represents the New England leader of industry at his best. He is conservative in temperament but progressive in business.

His factories produce some of the finest goods made in New Bedford.



GEORGE T. SEABURY, '02
New Secretary of the American
Society of Civil Engineers

His father made a reputation for the Wamsutta Mills by the quality of the cotton cloth they produced.

He belongs to several clubs and takes an active interest in his employees and in city affairs. He is a life member of the M. I. T. Alumni Association. There is no fuss and feathers about him. He had the rather severe, plain dignity of the New Englander without any attempt at ornament in his person or speech. He wore an old soft hat and a plain black tie when the *Post* man met him today and he stood up and chatted, "man to man," rather than formally sitting down and discussing things.

As a member of the City Council, he made a name for himself as a man who liked to work with others. Always courteous and agreeable, he preferred to work with his associates, rather than apart from them.

—*Boston Post*.

George T. Seabury, '02

The American Society of Civil Engineers announces the selection of George Tilley Seabury of Providence, R. I., to fill the office of secretary made vacant by the death of John H. Dunlap.

Mr. Seabury is a graduate in civil engineering from the Massachusetts Institute of Technology and has had long and varied experience in water supply work with the Board of Water Supply of Providence and the Board of Water Supply of New York City. He was formerly with the Subway Construction Co., the O'Rourke Engineering Construction Co., the United Engineering and Contracting Co., and other concerns in construction work in and about New York and then for nine years with the Board of Water Supply of New York City. At the outbreak of the war during which he served as a Major in the Construction Division of the Quartermaster Corps, he was with the Board of Water Supply of Providence. He acted as supervising construction quartermaster in charge of construction at Camps Devens, Upton, Mills, Merritt, Dix, Meade, and Lee. As president and general manager of George T. Seabury, Inc., he was engaged in general contracting business, specializing in road construction for about four years.

Since March, 1923, he has served as manager of the Providence Safety Council, which he has developed to an active organization of over four thousand members. His activities, which have included special publicity work, studies, analyses, and addresses, have been applied chiefly to reducing automobile accidents in Providence. His work has resulted in an accident decrease of 21 per cent in spite of the fact that there has been an increase in registered vehicles of 25 per cent.

Mr. Seabury took up his new duties early in January.

—*Mechanical Engineering*.

Starr Truscott, '07

Starr Truscott, for seven years one of the chief designers in the United States Navy aircraft division, testifying today as an expert witness in the case of *Hellier vs. the Baush Machine Tool Company* of Springfield, predicted that within a short time airships four times the size of the *Shenandoah* would be constructed and would be entirely serviceable.

Mr. Truscott was testifying regarding the future of duralumin, particularly as to its use in the construction of aircraft and car doors. He stated that air vessels twice as large as the *Shenandoah* are already under

construction and rigid airships four times as large as the *Shenandoah*, or containing 10,000,000 cubic feet, are feasible.

Mr. Truscott, in an interview after the hearing, said: "We can expect a constant increase in the size of rigid airships. This will take place for the same reason that the size of surface ships has continually increased. It is always more economical per unit of displacement of capacity to operate a large ship than a small one. The power required per unit of displacement to reach a given speed is always less per unit of displacement in the larger ship.

"At the same time the number of people required for handling in operation is not very much increased for the larger ship over the people required for the smaller one. Another cause which forces the use of very large rigid airships is that it is only by using very large ships that we can cover the great distances like those across the seas and carry a sufficient number of passengers or a large enough quantity of mail to make the ship pay. While it is entirely feasible to cross the Atlantic with the *ZR-3*, it is extremely doubtful whether such a ship, large as she is, can carry with a proper margin of safety a sufficient number of passengers or a large enough quantity of mail to repay the cost of operation.

"A ship twice as large probably would do this and leave something over for profit. Making the ship four times as large, the proportionate cost of operation would probably be smaller and the amount left for profit be still greater even in proportion to the increased size of the ship.

"There is no doubt as to our ability to design and construct successful ships of large dimensions. Naturally we would not wish to jump from the *ZR-3* to a 10,000,000 cubic feet ship, but I believe that it is entirely practicable to build one of 5,000,000 cubic feet capacity at the present time. This would require careful study and some experiment in the way of development of new girders, and new dispositions of material, but basically would follow present practice.

"Once we have succeeded in completing the 5,000,000 cubic feet ship the increase to the 10,000,000 cubic feet ship would probably be made in two steps — 7,500,000 and 10,000,000.

"It must not be expected that rigid airships are going to put railroads out of business immediately after their introduction. They logically compete with the steamship, where the full benefit of their greatly increased speed can be obtained at once. One must remember that the airship is a ship and much more subject to the delaying effects of wind and weather than a railroad train. People accustomed to traveling on ships will not object to one to five hours' variation in time of departure and arrival as will people accustomed to our split second timing of railroad trains.

"The British contemplate the establishment of a route from London to Egypt and India with a subsequent extension to Australia. Australia would then be within eight and one-half days of London instead of three to six weeks as at present. This speeding up of communications will have important commercial advantages and will add to that community of interests of the mother country and the Dominions which is so much desired by the British Government.

"We do not have quite the same situation but we do have to the southward of us a great continent which is tied to us geographically and whose community of interests with us we only partially realize. It seems to me that our first airship lines should run between

North and South America. I would suggest a line from New York to Panama as the first. At Panama the transportation lines of the west coast of South America and the west coast of Central America meet.

"Lines from New Zealand and Australia also pass through the Panama Canal on their way to Europe. If mails and express passengers could transfer to an airship at Panama and get to New York in two or three days they would undoubtedly patronize such a line heavily. If an intermediate stop were made at Havana one can visualize the heavy traffic between Havana and New York.

"These airships will probably take on and put off their passengers at gigantic mooring masts. It is not probable that such masts will be erected on the top of buildings as has been proposed. The travel between masts and cities will have to be provided for by car or tram very much as at present between terminals and docks.

"The date on which the accomplishment of these visions may be expected is going to depend largely on the ability of the people of this country to think in the air. The importance of this sort of thinking from a military point of view cannot be overestimated. When it is remembered that it only takes a few hours to transform a commercial rigid airship into a military one, the advantage of having a large airship fleet is apparent."

—*Boston Evening Transcript.*

John G. Callan, '96

The electrical era may be superseding that of steam; but one of the most prominent engineers in New England achieved his prominence by progressing from electricity to steam as his specialty, and not the reverse.

He got his first job after graduating from the Massachusetts Institute of Technology at the age of twenty-one with the Edison Electrical Illuminating Company of Boston. They put him to work in general electrical and experimental engineering and then at commercial engineering.

After about twelve years with this company he became mechanical and electrical engineer for Arthur D. Little, Inc., of Boston. He left after six years to teach steam and gas engineering at the University of Wisconsin.

Today he is professor of industrial engineering in the Graduate School of Business Administration of Harvard University.

In addition, he has built up a large consulting practice and is the inventor of more than seventy patented improvements in gasoline and steam engines.

His name is John G. Callan.

—*Baltimore American.*

A Correction

In this section in the December issue there was reprinted a despatch from the *Denver News* concerning A. A. Potter, '03. In it the statement appeared that "He was then Andrey Abraham Pelonsky and he later, by court action, changed his name to Potter." This was erroneous. The maiden name of Mr. Potter's mother was "Pelonsky." His father was Gregor Potter. Dean Potter has pointed out this error of the *Denver News* which The Review regrets to have repeated.

UNDERGRADUATE AFFAIRS

Baseball Waits a Year

Thirty-odd days ago the chances for a Varsity Baseball team this coming spring appeared brighter than at any time since the famous Williams game back in the darker ages of Technology athletics—mentioned in the last issue of *The Review*. On further investigation the proponents of the sport have found so many prohibitive or hampering conditions that they recommended to the Advisory Council at its January meeting that there be no 1925 Varsity team but that an informal team be operated as in 1924; the Varsity proposal to be held in abeyance until 1926.

Chief among the troubles were the lack of practise and playing facilities. While it is true that there are two diamonds between the main building and Walker Memorial they have overlapping cinder outfields and in addition form arteries of travel for pedestrians and occasional motorcyclists. The right field of the better of the two, (which incidentally is so oriented that the afternoon sun shines opportunely in the batter's eye) is circumscribed by a row of concrete blocks designed for occasional use in Eastman Court as the bases of

class banner standards. Between their infrequent periods of utility they are parked in the outfield to ward off ravishing delivery trucks bent upon shortcuts. No one is to blame for these wretched conditions. These diamonds, as well as the maligned tennis courts in the rear of Walker, were laid out as mere temporary features. Permanent, properly designed and constructed baseball and tennis facilities are some time to be laid out on the new land to the west of Massachusetts Avenue. But the new diamond or diamonds will not be ready for 1925.

The proponents of Varsity baseball recognize fully that the first few years of the sport, if undertaken, will be subject to many cares and worries. They do not wish to try out the first season until the playing facilities are improved. Unsatisfactory first season results might bring about a setback of several years.

The Advisory Council acceded to their request that an informal team like last year's "Beaver Ineligibles" be operated, but objected to that name since it implied that the individuals composing the team were ineligible as players rather than that the team was an

Athletic Results to January 17

BASKETBALL

- Jan. 10—M. I. T. 24, Northeastern 23, at Hangar Gym.
Jan. 16—Williams 30, M. I. T. 25, at Williamstown.
Jan. 17—Amherst 38, M. I. T. 25, at Amherst.

HOCKEY

- Dec. 5—M. I. T. 3, Boston University 3, at Boston Arena.

Dec. 11—Harvard 8, M. I. T. 3, at Boston Arena.

Jan. 10—Dartmouth 7, M. I. T. 2, at Hanover.

Jan. 17—U. S. M. A. 1, M. I. T. 1, at West Point.

RIFLE

Dec. 13—Columbia 950, M. I. T. 925.

WRESTLING

Jan. 10—M. I. T. 28, Northeastern 5, at Hangar Gym.

Jan. 17—Yale 24, M. I. T. 3, at New Haven.

A Calendar of Future Sports

- Feb. 3—Fencing—Norwich at Cambridge.
Feb. 7—Boxing—U. S. M. A. at West Point.
Fencing—U. S. N. A. at Annapolis.
*Rifle—Yale, Drexel Institute, Virginia Polytechnic Institute.
Swimming—Boston University at Boston Y. M. C. A.
Track—Wilco A. A. Games at New York.
Wrestling—U. S. M. A. at West Point.
Feb. 11—Basketball—Tufts at Cambridge.
Feb. 13—Hockey—Bowdoin at Brunswick, Maine.
Feb. 14—Basketball—Northeastern University at Boston.
Boxing—McGill at Montreal.
Fencing—Bowdoin at Cambridge.
Hockey—Bates at Lewiston.
*Rifle—Williams.
Track—New York A. C. Games at New York.
Wrestling—Syracuse at Cambridge.
Feb. 18—Basketball—Brown at Providence.
Feb. 20—Gym—Princeton at Princeton.
Feb. 21—Basketball—Boston University at Boston.

- Feb. 21—Boxing—Colgate at Hamilton.
Fencing—Columbia at Cambridge.
Gym—U. S. N. A. at Annapolis.
*Rifle—Harvard
Swimming—Williams at Williamstown.
Wrestling—Brown at Providence.
Feb. 23—Track—American Legion Games at East Armory.
Feb. 25—Basketball—Clark at Cambridge.
Feb. 28—Basketball—University of New Hampshire at Durham.
*Rifle—University of Maine.
Swimming—Wesleyan at Middletown.
Wrestling—Norwich at Cambridge.
Mar. 7—Fencing—Harvard at Hemenway Gym.
Gym—Dartmouth at Hanover.
*Rifle—Norwich University of California.
Swimming—Brown at Cambridge.
Track—I.C.A.A.A. at New York.
Wrestling—Lehigh at Bethlehem.

*All Rifle matches by telegraph.

ineligible team. The exact name will be selected later.

Although the raising of the question has not resulted in the establishment of a Varsity baseball team it has uncovered a surprising, and in some quarters, entirely unexpected, enthusiasm. The fact that the backers of the project chose to wait until it can be launched under the most auspicious circumstances seems to augur well for a favorable vote when the time comes for the Advisory Council to give its consent.

A New Eligibility Rule

The Constitution and By-laws of the M. I. T. A. A. have been in drydock for some time. The repairs have been chiefly of an etymological nature but in one respect a significant change has been adopted. This relates to the eligibility rules for transfer students of which Technology has a disproportionate number in comparison with other institutions with whom it enters into athletic competition. The rules as they stood included among other provisions the "amateur requirement," the barring of freshmen from Varsity competition, the one-year "migrant student rule," and the limiting of an individual to three years of Varsity competition. Candidates for advanced degrees at the Institute were entirely ineligible. Thus a transfer student who registered at Technology as a candidate for the baccalaureate degree would be eligible to compete for a Varsity team after he had been in residence one year, providing he were an amateur and had had less than three years of Varsity competition at his original college. The new change says that if, prior to entering Technology he graduates from another institution of collegiate grade, his work at Technology is, for him, essentially graduate work and hence he should be treated as a graduate student. After considerable discussion the rule was adopted by the Advisory Council by a unanimous vote as follows:

"He shall not represent the Institute if he holds a degree from, or is a graduate of, an institution of learning of collegiate grade, or if he is a candidate for an advanced degree at M. I. T."

This is in line with the practise of most other institutions. Harvard, Yale, and Princeton now operate under the so-called "Big Three Rule" by which they bar anyone, who has ever attended another institution. It is probably only a matter of a few years before this will be included in our Technology rules. In the opinion of many, the Advisory Council is pedantically strict in its ideas of eligibility. Certainly it has a reputation for leading movements for stricter eligibility rules instead of adopting measures only after being forced to do so through the consensus of feeling on the part of colleges with whom Technology competes. Its actions are therefore recognized without question and the eligibility of a competitor entered by M. I. T. is never questioned. To maintain this reputation seemed to compel the change of rule as adopted. It will go into effect beginning with the academic year 1925-26.

Tech Show

The appearance of Ned Wayburn, famous producer of amusement for the tired business man, and now retained as coach of Tech Show 1925, at the first assembly of all candidates held January 10, started the Show on its first lap towards production. Enthusiasm marked his visit. Forty-six men took part in the first tests for ballet and chorus and thirty others were present for the first eliminations for the cast.

Mr. Wayburn first outlined his method of coaching. He was a great believer in discipline, he said. Rehearsals must come on time. All of the players are to receive instruction in make-up so that there will be no need of several extra people to make up the performers. "Nothing is so pathetic," said Mr. Wayburn, "as to see a group of amateur players with poor make-up." After other instructions and a brief explanation of some technical terms, the coach conducted a series of group tests to determine the rhythmic sense of the men.

Mr. Wayburn announced a change in the name of the book to the more catchy, "The Duchess of Broadway." The cast numbers ten and there will be an understudy for each part. Rehearsals will be held for six consecutive week-ends beginning February 6 under the supervision of Maurice Darcy, one of Mr. Wayburn's senior coaches.

Circus?

A great deal of interest is being stirred up among the undergraduates over the question of whether or not an Institute Circus shall this year be held. The circus was inaugurated at Technology three years ago, but was not held last year. The first one was given in the main hall of Walker Memorial. Fraternities, activities and classes put on various stunts for which prizes were awarded. Booths were arranged and many of the students appeared in fancy dress. It was an occasion of general jubilation.

This year interest has revived and according to G. L. Bateman, '25, President of the Senior Class and of the Institute Committee, that latter body has reason to believe that the students want a circus. Tentative plans were somewhat discouraged by the fact that the new decorations in Walker make it impossible to hold the circus there, due to the danger of spoiling them. The Institute Committee questions the feasibility of holding it elsewhere but has investigated the possibilities of a large hall in a nearby factory which was used for a dorm smoker and the old Armory on Massachusetts Avenue. The third possibility, the hangar-gymnasium, has also received favorable attention. It is probable that if the circus is held at all, it will be on one of these three sites late in March.

The "Orientation" Lectures

President Stratton is the originator of an idea which will afford any interested freshman an opportunity to learn more about his institution and his life while in it and after he leaves it. Under the plan, one morning every Thursday has been left vacant in all freshman schedules. At that time talks of an informal nature will be given relating to life in and about the Institute, to the selection of professional courses and to a few other topics which will aid in broadening the outlook of the new men. Some of the speakers will be chosen from the Institute staff, some from outside. Attendance is optional. The first of the talks was given on January 15 by Dean H. P. Talbot, '85, on "Technology Life and Traditions."

Musical Clubs

Alumni who had not been previously warned were undoubtedly pleased to hear the dulcet tones of the musical clubs come through on their crystal set on the evening of January 14. The broadcasting was done through the *Herald-Traveler* station WBZ at Springfield and carried on a tradition established last year.

NEWS FROM THE ALUMNI CLUBS

Technology Club of Shanghai

Now that our annual meeting for election of officers for the coming year is most upon us it behooves the present secretary to give some account of himself before being relieved of duty.

During the recent interprovincial war around Shanghai the writer performed considerable military duty with the Shanghai Volunteer Corps, and so neglected both business and personal affairs that he hasn't yet caught up. He therefore offers these extenuating circumstances as an excuse for the scarcity of news items from Shanghai for the last few months.

Since the last notes which reported our activities up to the summer adjournment, we have had one summer outing and the usual monthly dinner or tiffin meeting starting with September.

The outing as usual was a huge success and took the form of a houseboat party at Wusih on August 3 with Messrs. V. T. Koo, W. Y. Chiu, Y. T. Van, M. S. Zhen, T. S. Sih and T. Y. Tang as hosts. About twenty took the early morning train from Shanghai and on arrival at Wusih were joined by the hosts and a flower boat provided with plenty of chow and singsong entertainment. The boat was towed out into the beautiful Tai Hu Lake and then to Yang's Plum Orchard, a favorite resort for such excursions. Tiffin was served on the boat and the afternoon was spent in playing Mah Jong and hiking about the nearby country. It was nearly dark when the party returned to Wusih, where tea was served at the Washington Hotel. Turpin Hsi seems to deserve special mention for his success in accommodating himself to the holiday atmosphere. We don't know exactly what happened but we know he didn't play Mah Jong or join the hikers, and he admitted that he didn't see much of the scenery. It was rumoured, however, that one of the charming entertainers knew where he was most of the time.

On account of war conditions around Shanghai during September and October many of the members could not be present and conse-

quently the two meetings held during that period were not well attended. At the November meeting, however, the attendance again jumped back to normal with thirty members present. At several of the recent meetings new arrivals from America have been guests and have given talks regarding their recent experiences at the 'Stute. At the November meeting, T. C. Hsi, '14, gave a very interesting lecture on his experiences as Secretary of the Chinese Government Economic Mission on its recent trip around the world.

E. C. Holbrook, '12, Secretary,
Truscon Steel Co., Shanghai, China.

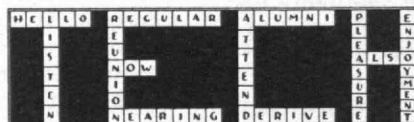
Technology Club of Philadelphia

No longer can the City of Philadelphia be referred to as "Slow-town," "the City of Stagnation," "Haven for the Archæologists," etc., as it has been by some of the more boisterous municipalities. The stern old Quakers have refused to adhere to many customs and traditions. The old reply, "What is good enough for my father is good enough for me," is seldom heard. A new subway is under construction, which will render all hitching posts along Broad Street obsolete. A mammoth suspension bridge is being erected to cross the historic Delaware. Work on a new water supply system extending far up into the mountains, and a municipal stadium, is about to be started.

The spirit is contagious and has affected the Technology Club of Philadelphia. The custom has been to hold one meeting a month at the Engineers' Club. The meeting was preceded by a dinner after which all would adjourn to the lecture hall for the remainder of the program. The second meeting of the year was called at the Hotel Adelphia. A wonderful dinner was served and immediately after the last course, the newly elected President, Dexter A. Tutein, '17, who had just returned from rather an extensive trip to Europe, took the chair.

Says the Five-Year Reunion Committee

The Big Days Are Thursday and Friday, June 11-12



DENNIE'S CROSS-WORD PUZZLE SOLVED

When we try to tell you about the All-Technology Reunion program we are up against it—like the photographer.

"Do you make life-sized enlargements of photos?" he was asked.

"Yes, sir; that's our specialty."

"Well, do this one for me. It's a snapshot I took of a whale."

That's all we are going to give you this month—a

snapshot of a whale of a program. Enlarge this to suit yourself. You'll be within the truth.

Plan to come yourself. More than that, talk other Tech men into coming. Let us make this the biggest reunion—as well as the jolliest, snappiest, happiest, speediest. We'll all be young June 11-12. You may feel old for a week after, but you'll have your memories.

So, write and tell us you are coming Thursday and Friday, June 11-12.

Calendar

THURSDAY, JUNE 11.

Morning—Registration in Main Lobby at M. I. T.

Noon—Buffet Lunch at Walker Memorial.

Afternoon—Departmental Inspections, followed by tea at the President's house on the campus.

Evening—Informal Jamboree Dinner in Boston.

FRIDAY, JUNE 12

All Day—Sea Trip to and Frolic at Nantasket Beach.

Evening—Tech Night at the Pops.

SATURDAY, JUNE 13 AND SUNDAY, JUNE 14

Week-end Parties by the Classes.

Several important announcements were made, among which was one regarding an addition to the funds in the treasury. In May, a wager was made between Dexter Tutein and Jerome G. Harrison, '06, Vice-President, to the effect that Mr. Coolidge would not be elected President. The proceeds were to be turned over to the treasury. The battle raged hard and fast throughout the remaining months, Tutein leading the Republicans, Harrison leading the Democrats. Most of these discussions took place at the weekly luncheons. It is the general opinion that the results of the election were due in no small measure to the aforementioned contest. The money was turned over to the Treasurer with all the pomp and ceremony due such an occasion.

After this rather touching ceremony all had the pleasure of listening to a most interesting talk given by Mr. Karl Bloomingdale. His topic was "Actors and Actresses That I Have Met." Mr. Bloomingdale concluded his talk by describing a "goat." The chairs were then rearranged and everyone enjoyed the three acts of vaudeville acquired for the occasion by Dud Bell, '17.

On December 6 many members of the club attended the wedding of our President, Dexter A. Tutein, to Miss Marie L. W. Faries.

All Tech men whether they be transients or permanently settled in Philadelphia and vicinity are invited to attend the weekly luncheons held in Wanamaker's Tea Room or the regular meetings of the club.

Walter J. Beadle, '17, *Secretary*,
Philadelphia Rapid Transit Co., Philadelphia, Pa.

Washington Society of the Massachusetts Institute of Technology

The monthly speaker luncheon of the Washington Society was held at the University Club on December 10. Dr. Julius Klein, Director of the Bureau of Foreign and Domestic Commerce, gave a very interesting and instructive talk on the conditions of foreign trade. Dr. Klein was optimistic about the outlook for American trade abroad, and backed up his opinion by some very interesting statistics.

It is of interest to note that this year we have had fifty per cent more men pay their local dues than in the preceding year. This is largely due to the activity of our efficient Treasurer, Mr. Dean, but it also shows the interest in the society.

Word has been received of the sudden death on Wednesday, October 15, 1924, of Oscar G. Vogt, at his home in Chevy Chase, Md. Mr. Vogt was fifty-one years old, and was a native of Washington, D. C. He was graduated from the Washington public schools and took a course in architecture at Tech. He was well known in Masonic circles and was a member of a number of civic organizations. He was a member of the Country Club, Scottish Rite, and National Lodge of Masons, and the American Institute of Architects.

His wife, Mrs. Lena C. Vogt, and a brother and sister, Fred H. Vogt and Mrs. Bertha V. Brand, survive him. He was buried on October 18, 1924, in Rock Creek Cemetery, Washington, D. C.

On November 18, 1924, Lawrence Hawkins, engineer of the Research Laboratory of the General Electric Company, spoke at a meeting of the Oneida School Community Association on the subject, "Research Work in Modern Industries," in connection with the work of the General Electric Company. Mr. Hawkins has lived in Schenectady for a number of years, and is a member of the Quarter Century Club of the General Electric Company.

W. Malcolm Corse, '99, *Secretary*,
1901 Wyoming Avenue, Washington, D. C.

New Haven County Technology Club

A meeting was held at the Winchester Club on October 4, 1924. Those present were Polleys, Haynes, King, Shaw, Vischer, Wellington, Rutherford, Maconi, Taft, Boyd, Holdbrook, Swett, Rich, Dunlap and Parsell. After dinner a Nominating Committee was elected to select candidates for 1924-1925 officers. The balance of the evening was spent in bowling.

The election of officers was conducted by mail and resulted in the election of Roy L. Parsell, '14, New Haven, President; Harold G. Manning, '12, Waterbury, Vice-President; and W. H. Whitcomb, '03, New Haven, Secretary-Treasurer.

William H. Whitcomb, '18, *Secretary*,
P. O. Box 606, New Haven, Conn.

The Technology Club of Rochester

The annual meeting and fall picnic was held at the Red Jacket Inn, Scottsville, N. Y., on Saturday, October 25.

About forty-five Tech men motored out and joined in the fastest exhibition of baseball that has been staged since last year. The World's Series resulted in a clear victory for the odd classes as much as I hate to admit it, but their best man was an odd man to be sure. The other championships that were determined were the crack rifle shot, the crookedest dart thrower, and the roughest putter.

Everyone took part and was soon ready for a real dinner, which

was made all the merrier by Clayton Grover's teaching the piano how to dance, and Bill Edmond's leading the gang in "I wish that I were back again."

Immediately after dinner a business meeting was called to order by Vice-President Wells. The annual reports of both the President and Treasurer were read and approved. A lively discussion followed concerning the Musical Clubs, resulting in our heartily accepting their invitation to give a concert here on December 30 at the Seneca Hotel. Plans were laid to make it a most successful affair and we hope that all the alumni in this vicinity will attend.

The Nominating Committee reported that the following officers were unanimously elected by secret ballot: (steam roller) President, J. B. Wells; First Vice-President, A. F. Sulzer; Second Vice-President, A. S. Moore; Term member, Executive Committee, E. M. Hawkins; Secretary and Treasurer, T. M. Taylor. Mr. Ancona then gave a brief outline of the Scholarship Committee's tentative plans for setting up a Scholarship Fund, and pointed out a few of the difficulties encountered.

The winter activities of the Tech Bowling Club were stirred into action by H. L. Smith and plans were laid for monthly bowling matches which promise some lively get-togethers during the winter.

A new directory of the Tech men in this vicinity is being published, and any man who desires a copy may have one by sending in his name, class, business occupation, and both his home and business addresses.

T. M. Taylor, '22, *Secretary*,
76 Harvard Street, Rochester, N. Y.

Technology Club of Northern Ohio

On Saturday, October 11, a joint picnic with the Technology Club of Akron was held at the Glenn Valley Club of Brecksville, Ohio. About twenty-five men were present and had a regular old-fashioned field day, with a baseball game in the afternoon followed by a tug-of-war and then a baseball throwing contest. Morse Rew and Mose Green were in charge of events.

Akron won the baseball game although Cleveland claimed they had more men reach third base than Akron did. The mechanical error in this was that on third base a jug of cider was placed and the Cleveland men were such heavy drinkers that after they had loaded up on third they could not run fast enough to reach home without being put out.

In the other two events, Cleveland won the tug-of-war while the baseball throwing contest came out a tie. Cleveland claims to have won the day, however, as they won a golf tournament which was held at the Mayfield Club earlier in the week. The men who participated in this tournament were E. R. Motch, '97, Stanley Motch, '99, Harry L. Grant, '01, and Phil Small, '15. These men walked away with the honors on the golf links which brings back the Merryweather Cup to Cleveland this year, having been won by Akron last year.

In the evening all went to the Brecksville Country Club for dinner, which is just half-way between Akron and Cleveland. The program was concluded by each member telling a story. Ask anyone who was present who won that event.

Philip N. Cristal, '17, *Secretary*,
12th Floor, Marshall Building, Cleveland, Ohio.

The Technology Club of New Bedford

The annual meeting of The Technology Club of New Bedford was held on November 6, 1924, at the Wamsutta Club, with an attendance of twenty members and Dr. Allan Winter Rowe, '01, and Orville B. Denison, '11, Secretary-Treasurer of the Alumni Association, as guests. At a business meeting of the club, James A. Stetson, '99, was elected President and Thomas G. Jewett, Jr., '16, member of the Executive Committee. Dennie gave a short talk on alumni matters and then opened the real festivities of the evening with the singing of "Pie" which was received with much applause. As an encore he gave us a "Chinese Song" which was also well received. Chairman Earle then introduced Dr. Allan Winter Rowe, '01, who spoke in a charming manner on "Athletics at Tech." Everyone present was very much impressed with the account of the wonderful strides made in athletics at Tech since the days of the old Exeter Street sidewalk. At the conclusion of Dr. Rowe's remarks a few of the old "grads" present were inspired to get out and "break the tape" but the length of our small meeting room prevented this. Dennie then rendered a song about "a girl from Savannah, Georgia" and as an encore sang that touching ballad entitled "Women." Two reels of movies showing new views of the Institute and activities of the Class of 1924 were then shown and thoroughly enjoyed by all. As a closing number, Dennie rendered "Pie" again at the urgent request of Charlie Wing who felt that Dennie's menu card would not be correct unless "Pie" appeared as both opening and closing numbers. Our guests entertained us splendidly and made our annual meeting one of the most successful we have ever held.

Ira M. Chace, Jr., '98, *Secretary*,
131 Bedford Street, New Bedford, Mass.

NEWS FROM THE CLASSES

News from even-numbered classes is published in issues dated November, January, March and May. News from odd-numbered classes is published in issues dated December, February, April and July. The only exceptions to this rule are those classes whose Secretaries have guaranteed the appearance of notes in every issue. These classes are: 1895, 1896, 1900, 1901, 1902, 1905, 1907, 1910, 1911, 1912, 1914, 1915, 1916, 1917, 1918, 1919, 1921, 1922, 1923, and 1924. Other classes adhere to the alternate schedule. Due to strict limitation of space, *The Review* is unable to publish lists of address changes of members of the Association. The Alumni Office, in Room 3-209 M. I. T., will supply a requested address or will act as the forwarding agent for any letters addressed to members of the Association in its care.

'77 The Secretary regrets to report the death of our classmate, Howard Evans.

Evans was born at Cincinnati, Ohio, on March 2, 1857, and received his primary education in the public schools of that city. He entered the Massachusetts Institute of Technology in the Class of '77, taking a course in Civil Engineering with special studies. After remaining at the Institute for three years, he left in June, 1876.

In the fall of the same year he secured the position of rodman in the Miami Valley R.R., remaining with them until the summer of 1878 as rodman and assistant division engineer. In January, 1879, he went to old Mexico, returning on March 1, to inspect rails for the Denver, South Park & Pacific R.R. He came to Denver, Colo., in April, 1879, and as his inclination was towards finance rather than engineering he became associated with the City National Bank as bookkeeper. In 1880 he went out to Gunnison County in the western part of the state in the interest of a land company, but returned to Denver in January, 1881. For two years following he was with the Crescent Milling and Elevator Company and in 1884 he was connected with the Denver National Bank in various capacities becoming finally Assistant Cashier. He changed again to the position of Cashier in the American National Bank, where he remained until 1896. He then became interested in various mining and investment companies and was very successful in those lines, being General Manager of the January Mining Company in 1901. He eventually entered into the real estate investment business and at the time of his death he was Secretary and Treasurer of the Evans Investment Company.

He was married on December 12, 1881 to Susan Gray Lowell, who died a few years ago. He had two sons, both of whom died many years ago. His only close surviving relatives are a sister, Mrs. Harriet Evans Hodge, of Winchendon, Mass., and a brother, Charles Seth Evans, of New York City. Mr. Evans was of a genial disposition and was well liked by his classmates and professors. He was fond of athletics and took an active part in the formation of a baseball team which acquitted itself in a creditable manner. His life of usefulness in this world has formed a foundation of character of the greatest use in the future life in which he will continue on a higher plane. In the near anticipation of the fiftieth anniversary of graduation we shall miss him as one of the former members whom every one would wish to see.

He was a nephew of John Evans, the territorial Governor of Colorado, and a cousin of the late W. G. Evans, at whose house he died of heart disease on November 13, 1924.

Richard A. Hale, *Secretary*,
Essex Company, Lawrence, Mass.

'81 Tippy Winslow was elected President of the Boston Boy Scout Council First District Committee for 1925. He has been a backer of the Boy Scout movement for eight years, and last year loaned his yacht and saddle horses for various Boy Scout activities. Winslow is now in active business as President of the Boston Petroleum Company.

Frank H. Briggs, *Secretary*,
390 Commonwealth Avenue, Boston, Mass.

'85 The year 1925 will be particularly important in the annals of time because it marks the Fortieth Anniversary of a great class, the last one to give a Freshman Ball! It has therefore been decreed by the President, Bert Pratt, that this year be set apart and dedicated to the Class of '85 and that on June 18 all those of its honored members who can move or be moved, shall assemble at the Wianno Club, and properly celebrate the occasion.

The President and cabinet have been making plans all the fall, and the arrangements will make possible the largest turnout we have ever had. Horace Frazer has preempted the two largest cottages of the club and Dick Pierce, Bob Richardson, and Artie Plaisted are already at work planning the literary program and the side diversions, which are bound to please our rural mates from the outlying

districts. Ev Morss and Ed Dewson, Commissioners of Exchequer, have already proved themselves wizards of finance, and hint that the expense will be almost, if not quite, nothing, because of pending negotiations for the picture rights.

There can be no more desirable place than the Wianno Club. Its scenic, amusement, and gustatory offerings are delightful to contemplate, and with the old bunch back—Oh, Boy.

June 18 comes on Thursday. Luncheon in Boston, motor to Cape, dinner at the Club. We remain Friday and Saturday, leaving Sunday afternoon, June 21.

Our Twentieth Anniversary at Squam Lake was the beginning of a custom, now adopted by every class, of going away for a few days together; a custom that has had a far greater influence on the destiny of the Institute, than any of us know. The memories of that happy time are still fresh and delightful, and although the Fortieth will be somewhat different in character, it will, like the Twentieth, bring back the atmosphere of student days and a renewed appreciation of the class and classmates, some of whom have not been with us since.

I. W. Litchfield, *Secretary*,
Hotel Wadsworth, 10 Kenmore Street, Boston, Mass.

'87 Maurice Cooley has been rediscovered by Taintor and we find that he is now connected with the Central Commercial Company, "Miners, Manufacturers, Importers, Factors," 1328 Broadway, New York. He is principally interested in the development of asphalt mines in Cuba, and has recently returned to that island.—Oren Hussey is spending the winter at Bradenburg, Fla.—Leonard Ahl was among those who had the pleasant privilege of personally meeting the Prince of Wales during his visit to the North Shore.

The Secretary regrets to report that the deaths of the following '87 men have recently come to his attention: Gamble La Trobe, June, 1922; William P. Regan, May, 1923; Emil Baumgarten, February, 1921; Joseph W. Moore, February, 1924; and Willard T. Sears, May, 1923.

Sears' first connection was with the Holly Manufacturing Company at Lockport, N. Y. From there he went to the Bement Niles Works of the Niles-Bement-Pond Company, with whom he was connected from 1890 to 1895. During this time he worked on the design of many important machines for locomotive shops and heavy ordnance works, as well as general machine tools. From December 1895 to 1905 he was connected with the Pennsylvania Steel Company at Steelton, Pa., and Duluth, Minn. During the latter part of his connection with this company, he was mechanical engineer of the Bridge and Construction Department at Steelton. In 1905 he returned to the Niles-Bement-Pond Company, as Secretary of their Engineering Bureau at the Bement Works, in Philadelphia. Since 1910 he had been at the New York Office of the Niles-Bement-Pond Company, as Consulting Mechanical Engineer. He spent considerable time on Radial Drill design, and the Right Line Radial Drill, as now built by the Niles-Bement-Pond Company, was a result of his efforts. In 1915 Sears went to China in connection with Arsenal Machinery. He had written several articles for the technical press, notably the *American Machinist*. He was a member of the American Society of Mechanical Engineers, American Society of Testing Materials, Glen Ridge Country Club, and the Masonic Lodge of Lockport.

Edward G. Thomas, *Secretary*,
Toledo Scale Company, Toledo, Ohio.

'89 The sympathy of the class goes out to the widow and children of George Whipple, who died suddenly on November 27 at his home, 6 Berkeley Place, Cambridge. George was one of the best loved and most genial of our members and his whimsical humor and pleasant ways at the class gatherings will be remembered for a long time to come. His record of accomplishment was a long one. The following account of his life is taken from the *Boston Transcript*. In addition he had recently been commissioned in the Reserve of the United States Public Health Service as directing sanitary engineer with the grade of Assistant Surgeon-General.

1889 Continued

He was born at New Boston, N. H., on March 2, 1876, and was graduated in 1889 from the Department of Civil Engineering at the Massachusetts Institute of Technology.

The field of sanitation, which was rapidly unfolding its possibilities at that time, claimed his services immediately upon graduation. From 1889 to 1897 he was in charge of the Chestnut Hill Laboratory of the Boston Water Works, and from 1897 to 1904 had directed the work of the Mt. Prospect Laboratory of the Brooklyn and New York Water Department. Resigning his official duties in 1904, Mr. Whipple took up the private practice of sanitary engineering in New York City, and since that date he had been a member of the firm of Hazen & Whipple. This firm has been recognized as one of the most capable in its special line, which has had to do with water supplies, the purification of water, and the disposal of sewage. Mr. Whipple served on many important commissions having to do with the solution of sanitary problems.

In 1911 he was called to Harvard University and made Gordon McKay Professor of Sanitary Engineering, which position he held at the time of his death. During the period when the Harvard Engineering School and the Massachusetts Institute of Technology were coöperating he was also Professor of Sanitary Engineering at the Institute.

He held the position of Professor of Water Supply at the Brooklyn Polytechnic Institute from 1907 to 1911. In 1914, Professor Whipple was appointed a member of the Public Health Council of the Massachusetts State Board of Health, and was chairman of the committee on sanitary engineering until last year. He was also a member of the Massachusetts Homestead Commission.

From 1913 to 1916, he was a member of the committee on building districts and resolutions of New York City and from 1912 to 1916, chairman of the Cambridge Sanitary Commission.

In 1917 he served as major and deputy commissioner to Russia in the American Red Cross. In 1920 he was appointed chief of the Department of Sanitation in the League of Red Cross Societies, Geneva, Switzerland, devoting considerable time to the study of typhus fever in Roumania. From 1921 to 1923 he served as chairman of the sub-committee on plumbing of the building code committee of the United States Department of Commerce. Professor Whipple was recently appointed a member of the general directive board of the committee on industrial lighting of the National Research Council.

He had been President of the Boston Society of Civil Engineers, of the Brooklyn Engineers' Club, and of various other societies. He was commissioned as senior sanitary engineer with the grade of Assistant Surgeon-General, United States Public Health Reserve. He was a member of the American Society of Civil Engineers, American Water Works Association, New England Water Works Association, Boston Society of Civil Engineers, American Society for Promotion of Engineering Education, fellow of the American Public Health Association, fellow of the American Academy of Arts and Sciences, fellow of the American Association for the Advancement of Science, honorary fellow of the Royal Sanitary Institute and fellow of the Royal Microscopical Society of London; also a member of the Harvard Club of Boston and the Boston City Club.

He was the author of many books and monographs, including "The Microscopy of Drinking Water", "Typhoid Fever", "Value of Pure Water", "State Sanitation", "Vital Statistics", "Fresh Water Biology" (with Dr. Ward), "William Thompson Sedgwick, a Pioneer in Public Health" (with Professor C. E. A. Winslow and E. O. Jordan).

Professor Whipple is survived by his wife, Mrs. Mary Rayner Whipple, a daughter, Marion (Mrs. Gerald M. Keith), and a son, Joseph Rayner Whipple, who is a student at Bowdoin College.

The funeral services were held from Appleton Chapel, Harvard University. Among the large number of persons present were prominent educators and health authorities, including Dr. Charles W. Eliot, President Emeritus of Harvard. The services were conducted by Rev. Dr. Raymond Calkins of the First Church, Cambridge, and Rev. Dr. Edward C. Moore of the Harvard Theological School.

The pallbearers were M. C. Whipple, Gordon Fair, both of the Harvard Faculty, and T. F. Hatch, H. G. Baity, A. S. Pope and M. C. Balfour, all pupils of the late Professor. The honorary pallbearers included President Lowell of Harvard, L. N. Babbitt, Malcolm Pirnie, C. M. Everett, Dr. Eugene Kelley, Dr. J. W. Bunker, Professor Samuel Prescott of M. I. T., Professor L. J. Johnson, Professor G. F. Swain, Professor A. E. Clifford, Professor F. L. Kenney, Professor A. E. Clifford, Professor Albert Sauveur, Dr. M. J. Rosenau, and Dean H. J. Hughes, all of the Harvard Engineering School, and Henry Knapp and Ben Proctor.

The ushers included members of the Harvard Engineering School Faculty and were Professor L. S. Marks, Professor A. E. Norton, Professor H. N. Davis, Professor C. L. Dawes, Professor L. C. Graton and Professor Ginnell Jones. Dr. Archibald C. Davidson, Head of the Department of Music at Harvard, was organist.

Walter H. Kilham, *Secretary*,
9 Park Street, Boston, Mass.

'91 Howard Forbes' present address is c/o American Express Company, 11 rue Scribe, Paris, France. He evidently is going to be on the other side for some little time.

The Secretary recently saw Morris Knowles in Chicago where he has been doing engineering work for that city. He has been appointed Consulting Engineer for a new sewer system for Lynn, Mass.

Barney Capen has been in the hospital for several weeks, but we are glad to report that he is back home again and we hope that by the time you read this he will be much better. He is always glad to hear from any of his classmates.

The Plymouth Cordage Company of which Francis Holmes is Treasurer has recently published a book commemorating their One Hundredth Anniversary. It is worth a visit to Plymouth just to look over their plant, which is one of the largest cordage concerns in the country.

Henry A. Fiske, *Secretary*,
Grinnell Company, 260 West Exchange Street, Providence, R. I.

'93 Friday, the 14th of November, was "'93 Dormitory Day" for the class. In the afternoon, Dr. Stratton, Honorary Member of '93, entertained at tea at the President's house members of the class and their ladies to the number of fifty or more. It is understood that this was the first class function to be held at the home of the President of the Institute. Dr. Stratton's kindly hospitality was appreciated at the time by all who had the good fortune to be present; later on, when it was learned that this was the last function Dr. Stratton attended before leaving that evening for Washington to undergo his recent surgical operation, our appreciation was all the keener.

Following the tea at the President's house, members and ladies of the class inspected the new '93 Dormitory, which is now in full use, the party being shown over the building by the student occupants. It is a far cry from the South End boarding house of our own student days to this modern dormitory, whose atmosphere is so inviting as to make one almost wish he were a student once more.

The annual class meeting and dinner were held that evening at the Algonquin Club, the men only being present. The feature of the business meeting preceding the dinner was the presentation of a handsome bronze tablet to be placed in the southerly corridor of the '93 Dormitory, its inscription being as follows: "In affectionate gratitude to Albert Farwell Bemis, '93, a devoted son of Technology, this tablet is here placed by his classmates." The tablet was procured by a committee of which Henry Morss was Chairman, who, in presenting the tablet, spoke feelingly of the work Bemis has done and is doing for Technology. The tablet was a complete surprise to Bemis, yet he gracefully expressed his keen appreciation of this action by his classmates.

For the success of the Thirtieth Reunion last year and the preparation of the Thirtieth Anniversary Class Book the class owes much to Ramsey Speer for his contributions. Speer's work was recounted by George Glidden and was duly recognized by the class by sending him a vote of thanks.

When it came to the election of officers for the ensuing year Wright Fabyan, our admirable President for the past three years and under whose notable administration our Thirtieth Reunion was held, positively declined another reelection; accordingly the class decided to elevate the Secretary to the President's job, without, however, releasing him from his position of Life Secretary. Other officers were reelected so that the officers for 1924-1925 are as follows: President, Frederic H. Fay; 1st Vice-President, Henry A. Morss; 2d Vice-President, Frederick N. Dillon; and Assistant Secretary, George B. Glidden.

Our guests at the dinner were the Treasurer of the Institute, Everett Morss, '85, and the Bursar, Horace S. Ford. Dr. Stratton had promised to come also but his illness prevented. Treasurer Morss spoke both for Dr. Stratton and for himself, outlining some of the work now going on at the Institute and giving also a clear and concise picture of its financial condition. Bursar Ford spoke entertainingly of dormitory administration and of some of the student problems which arise therewith.

Members of the Class of '93 will feel with especial keenness the loss of Robert N. Wallis of Fitchburg, one of the best loved members of the class. We had expected to see him at the meeting on November 14; Mrs. Wallis came to the tea and explained that her husband had just gone to the hospital for treatment. The announcement of his death on December 9 came as a great shock to us. He has left to his three sons a splendid tradition to live up to.

The following notice appeared in the *Fitchburg Sentinel* for December 9: "Robert Norcross Wallis, prominent in street railway, banking, welfare, social and business organizations and one of the most popular and widely known citizens in Fitchburg, died this afternoon at his home, 45 Mechanic Street, of nephritis.

"Robert N. Wallis was born in Fitchburg on December 28, 1870, the son of Benjamin F. and Susan Augustus (Lawrence) Wallis. He came of ancestry distinguished in the early annals of this section,

1893 Continued

his forebears being especially prominent in the early affairs of Lunenburg and Ashby. His father was almost a lifelong resident of Fitchburg. For many years he was in charge of the collection of internal revenue in this section, and was the Acting Treasurer of the Worcester North Savings Institution for a long period up to the time of his death. He was noted for his courtesy and was frequently termed the most gentlemanly man in town. His son inherited this trait, and it, combined with keen wit and a lively sense of humor, made him a welcome companion everywhere.

"Robert N. Wallis attended the public schools of Fitchburg and was graduated from the high school in the Class of 1889. Four years later he was graduated from the Massachusetts Institute of Technology and after a year with a business house in Philadelphia, he returned to Fitchburg to succeed his father as Treasurer of the Fitchburg & Leominster Street Railway Co., a position which he had since held.

"As a financier his ability was soon recognized. He had been a trustee of the Worcester North Savings Institution since 1914 and clerk of the corporation since 1899. He was a director of the Fitchburg Safe Deposit & Trust Co. from 1909 to 1915, a director of the Fitchburg Bank & Trust Co. since 1915, and a director of the Fitchburg Mutual Fire Insurance Co. since 1910.

"Mr. Wallis represented Ward 4 in the old common council in 1899 and 1900, and was the President the second year. He had been a trustee of the public library since 1919. He was a member of the old Merchants' Association and its President in 1903, and was a member of the Chamber of Commerce. He was a member of and active in the First Parish Unitarian church. For some years he had been one of the board of managers for the Old Ladies' Home. He was a member of the Oak Hill Country Club and of the Fay Club. In his school days he was an active member and an officer in the Agassiz Natural History Association. He was always interested in the schools and was largely instrumental in the formation of the Fitchburg High School Alumni Association.

"In a long time Fitchburg has produced no higher type of man than Robert Wallis was by general assent known to be. His devotion to the Fitchburg & Leominster Street Railway Company was no greater during its days of prosperity than in its leaner years, and this devotion was not restricted in the least by his desire that the public should always have the very best of service which the company could give. His connections with the company were mainly in the Accounting Department, one of the difficult seats in the councils of most any transportation company in these recent years, but his interest ever extended out into the general field of operations.

"The measure of his service to the street railway company also marked his attitude toward the better things in life. To whatever he laid his hands, he carried a degree of loyal interest and thoroughness which was characteristic. This was as true in personal and in social as in business relations.

"He is survived by his wife, Mrs. Pauline (Bergmann) Wallis; three sons, Lawrence Wallis, a teacher at Harvard college, R. Norcross Wallis of Springfield and Richard Wallis, a student at Dartmouth college; and a grandchild, William Parks Wallace. Mr. Wallis was a nephew of the late Eleanor Norcross, noted artist in this country and in France."

News gleaned at the dinner on November 14: that C. V. Allen's daughter married Percy Thomas' son; that Varney, for whom we have had no address for a long time, was with the Fidelity and Trust Company of Portland until 1916, when he probably went West. Does anyone know his address?

F. S. Badger has a son, F. S. Badger, Jr., in the Class of '27, M. I. T. He is one of the advertising men on the *Technique* board.

The Mackintosh-Hemphill Company, of which J. Ramsey Speer is President, has published a booklet, "Over One Hundred and Twenty Years of Service," which is very interesting historically and a record of splendid accomplishment in the rolling mill industry. Speer is of the fifth generation which has built up this business.

Professor Spofford has been elected a member of The Institution of Civil Engineers of Great Britain.

W. I. Swanton's interest in municipal affairs is indicated by his holding the Presidency of the Columbia Heights Citizens' Association, Washington, D. C.

Frederic H. Fay, *Secretary*,
200 Devonshire Street, Boston, Mass.
George B. Glidden, *Assistant Secretary*,
P. O. Box 1604, Boston, Mass.

'95

Preliminary arrangements are being made for the Thirtieth Annual Reunion. The dates set for it are Friday and Saturday, June 13 and 14, following the All-Technology Reunion. Please arrange to be in Boston from June 11 to June 14.

Gerard Matthes, Consulting Engineer for the Fairchild Aerial Surveys, Incorporated, of New York, will deliver a series of six lectures at the Institute on aerial surveying and mapping. The course is designed especially for civil engineers. Later the Institute expects to give instruction in aerial surveying in its regular classes in surveying.

Dr. Charles G. Abbot has been associated with the Smithsonian Institute, in Washington, since 1895, and has been Head of the Department of Astrophysics since 1907. Recently he has been conducting experiments with the effect of astral rays, selected by a spectro-scope, on a radiometer, in order to determine the heat given off by the various stars. Dr. Abbot describes the importance of his recent measurements as follows:

"One of the greatest unanswered questions of science is how stars are born, how they live and how they die. Their degree of heat appears to have something to do with their age. The stars are divided into two groups, the giants and the dwarfs. The giants are the big fellows that are younger than the smaller ones.

"The dwarfs are smaller because they are giving off more and more heat and at the same time contracting, which seems paradoxical, as ordinarily an object when heated expands.

"The stars, however, appear to go through a cycle. First they are nebulous masses of gases and vapors. Then they begin to give off heat; at the same time they get hotter and hotter and smaller and smaller.

"This continues for a certain period, when they begin to cool, finally getting quite cold and extinct, like the earth and the moon, which are dead stars.

"My recent investigations seem to throw new light on the physical nature of the stars. They will prove, I hope, far-reaching in their effect upon future study and knowledge in this field."

Frank A. Bourne, *Secretary*,
177 State Street, Boston, Mass.

'96

The months seem to roll around faster than class news rolls in. Lonngren writes from Los Angeles that he is busy with the organization of his steel enterprise and that his special problem at the present time is the financing. He has made peace with the Corporation Commission of California and has secured their permission to sell stock. This is a big advance for him, because the California Commission is extremely strict and does not put its seal upon any enterprise which does not appear to be absolutely O. K. Lonngren reported that he attended a Tech dinner at the University Club, where they had a good gathering and lots of old Tech spirit and that he plans to attend the Technology luncheons which come every Friday at the Los Angeles University Club. As an example of how Tech spirit crops out he told of a social gathering at Jamshedpur, India, where some fellows gave the Harvard yell, and where Lonngren and another were the only two Tech men present but who, nevertheless, gave a Tech yell which seemed to take very well with the audience.

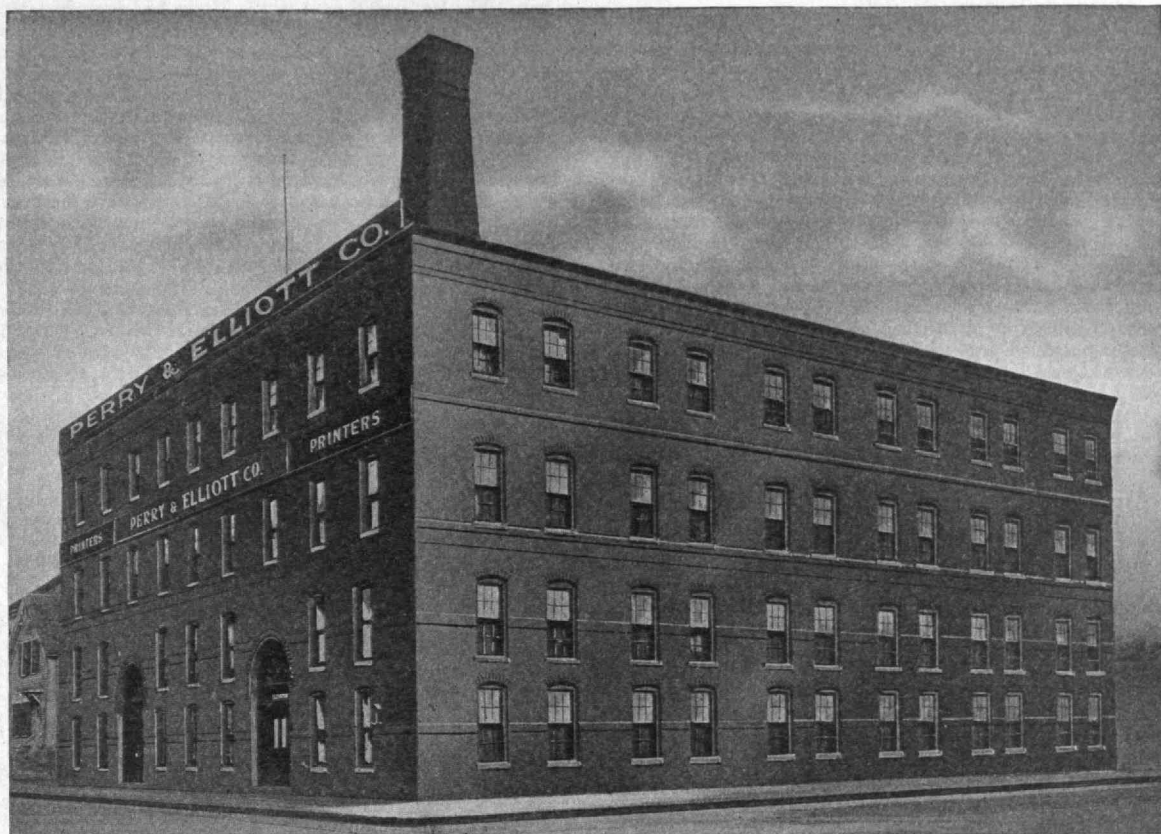
The Secretary finally wishes to report to the class that the '96 class baby, to wit, Martha DeMerritte Gage, daughter of Steve Gage, and now married to R. N. Brodie at Jefferson City, Mo., has finally received the class gift which took the form of a silver dish, in accordance with the expressed wish of Mrs. Brodie. At least, the Secretary assumes that she has received it as it was entrusted to the American Express some days before Christmas and should have reached Mrs. Brodie just about Christmas.

Classmates have all received a circular appeal from Partridge for funds for his church. The Secretary has, at the request of some of the classmates, been seeking further information in order to ascertain just who will be in charge of the handling of the funds obtained and hopes to be able to supply this information for the next issue.

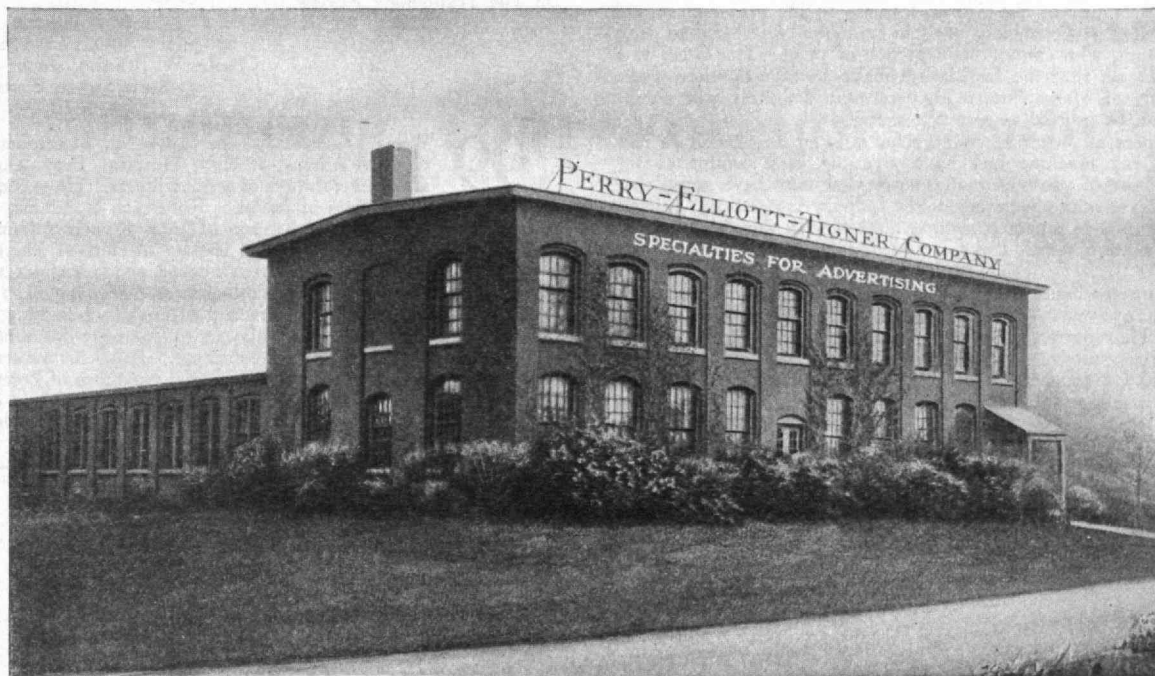
Perhaps the biggest item of class news for this issue is the announcement that Con Young has at last found his forte and has become, as he expresses it, "The Ham What Am." This means that Con has not given up his old business, but has taken up acting as an avocation. For about five years he has been doing parts in strictly amateur plays at the Chevy Chase School and with the dramatic crowd at the Arts Club, and, as a result, was voted in as an honorary member. One of their recent productions was *L'Aiglon*, in which Con took the part of the Emperor of Austria. This was put on by the Ram's Head Players, Inc., at the Wardman Park Theater in Washington. The Washington papers gave special credit to Con for the way that he acted the part and for his range of ability in the scene between the Emperor and the young Napoleon and a later scene with Metternich, where he had to show moods of much difference. Con reports that it has been a lot of fun and that work with the Ram's Head Players is much different from doing one night stands in a crowded parlor or a city club hall. The Ram's Head Players represent the Little Theater movement in Washington. George Merryweather, in commenting upon Con's new stuff, predicts that as Con gets older he may settle down into a real stiff omelet.

The Secretary ran across Mort Priest recently and found Priest is still business Manager of the *Boston American*. He reported that his son had been graduated from Technology a few years ago and has now gone into business for himself and Priest made a strong argument that more business courses be given as a part of the Technology training. Priest spends week-ends during the summer at his summer home in Richmond, Maine. Priest offered the services

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1896 Continued

of the *Boston American* toward getting a cut of the '96 gift to the class baby, but it was found impossible to obtain a satisfactory cut and so the idea had to be given up.

Walter Stearns made a call on the Secretary on Friday, November 28, but apparently this was an unlucky day, for the Secretary was out of his office for about five minutes at the time that Walter called and, therefore, missed him. Walter promised, however, to make it a point to come again soon.

M. L. Fuller has supplied further report of his Alaskan trip, as follows: "The outline of my trip in a recent Review covers the subject sufficiently. Alaska is too well known to awaken much interest, and while we were off the line of tourist travel, especially on the lower Yukon and shore of Bering Sea, we did not encounter anything unusual nor meet with any wild adventures. The Eskimos, aside from their skin garments, seem not very unlike the Indians who hang around some of our western towns. Bears, we really did see, in considerable numbers, but aside from one which made a decidedly unsuccessful attempt to climb aboard our steamer in mid river, they scampered off into the woods as fast as they could. Reindeer always kept at a respectful distance, but we were fortunate enough to strike the fall migration of caribou below Dawson, and saw half a dozen herds swimming the river and as many more on land. Game is served at all the restaurants in the mining towns under the names of reindeer, caribou, moose, and mountain sheep. At Dawson, a party of us called for an order of each. What we got all looked alike, tasted alike, and we even thought we could match the pieces together.

"I was away just a year on my cross-country auto and Alaska trips. I spent nine months in getting to Seattle, but we hiked back in twenty-two days. We camped out the greater part of the time, stopping wherever we took a notion, on sandy deserts or mountain tops, staying as long as we liked. We carried water, and used oil for fuel, so were independent of streams, wells, and fuel. We enjoyed it very much. It is an ideal way to travel if one knows how to do it in comfort, and the lady of the party is not afraid of imaginary bugs and snakes. Real ones give no trouble.

"We are off for Florida now, having in mind a yachting and camping trip among the mangroves of the Ten Thousand Islands of the west coast. We will probably be back in April. If we keep to our present plans, we will be in Massachusetts most of next summer." Fuller has a summer place in Easton with a pond, bungalows, and quite a stretch of woodland and he and Mrs. Fuller spend most of their time there when in the East.

One interesting note for '96 men is the selection of Paul Litchfield to deliver one of the Aldred lectures to the senior class and instructing staff at Technology early in January. Another item deals with Hultman, who cannot be kept out of print. His latest is a recommendation that the Legislature make an investigation of the coal deposits of Massachusetts to determine definitely whether or not they can be utilized as a source of fuel.

The papers all over the country have taken up Coolidge's new portable X-ray machine and have given it very commendatory notices.—Those of you who read *The Review* may have noted that J. Lloyd Wayne is the Secretary of the Indiana Association, M. I. T., and reports in that capacity, signing himself with the abbreviations of the association which looks rather odd, as follows: "Secretary, I AM IT."

A very interesting letter recently came from Lou Morse, who has been for many years with the York Manufacturing Company of York, Pa. He reports that he is in fine health, but that Mrs. Morse has not entirely recovered from her long illness and that he is planning to make a southern trip after the first of the year. Morse attended the refrigerating engineers meeting in Cleveland last spring and saw a lot of Charlie Stamp and his wife. Morse had had a lot

to do with Charlie in a business way through the Stamp hoist. Charlie has now sold out his interest and is at present on a European trip. The last postal card which Morse had from him was marked Wiesbaden, and on it Charlie stated that he and his family were having a fine time and expected to proceed to Frankfort and thence up the Rhine. Morse had a good word to say for Con Young's acting and reported that people who had seen L'Aiglon in Paris last year and saw the performance also in Washington felt that in many respects the Washington performance was more pleasing. At the December meeting of the American Society of Refrigerating Engineers in New York, Morse was elected a director of the society for three years. He also has active participation in the affairs of the Council of this society from his membership on three committees as follows: Committee on Standardization of Pipe, Flanges and Fittings; Committee on Synchronous Motor Design or Compressors; and Committee on Corrosion.

Charles E. Locke, *Secretary*,
Room 8-109, M. I. T., Cambridge, Mass.
J. Arnold Rockwell, *Assistant Secretary*,
24 Garden Street, Cambridge, Mass.

'97 Have you noticed that our classmate, Oswald C. Hering, is the author of a new book on "Economy in Home Building" published by Robert M. McBride & Company, 7 West Sixteenth Street, New York City?

The University of Maine has been good enough to confer the degree of Sc.D., *honoris causa*, upon Hugh K. Moore, '97, Chief Chemist of the Brown Company, makers of paper pulp.

The Alumni Association office is after us to assist them in checking up on good live addresses for all former alumni of M. I. T. I wish if any of my classmates know of changes of address or new addresses at any time of our members, they would be good enough to send them in to me or to the Alumni Office to enable them to keep their records up-to-date.

More power to our classmate, W. C. Potter, in his prize-winning golf game in September. He stands high in that as well as in the banking game.

It is with deep regret that we heard recently of the death by auto accident of Dr. Herman W. Marshall on October 4, 1924. Also one of our classmates informs me that Carl Schuttler, '97, died on June 11, 1924.

Please send in any items of interest you hear or see regarding any of our former classmates so that you may all enjoy reading them in *The Technology Review*.

John A. Collins, Jr., *Secretary*
20 Quincy Street, Lawrence, Mass.
Charles W. Bradlee, *Acting Secretary*,
53 State Street, Boston, Mass.

'99 Word has come of the death on December 7 of J. Howard Adams, at Hope Hospital, Providence, R. I., after several days of serious illness. He was a member of the firm of Jackson, Robertson & Adams, of Providence. He was the youngest son of John Francis Adams, at one time Mayor of Pawtucket, and a brother of Herbert M. Adams, of Nayatt. His wife, formerly Bertha Tucker, and four children survive.

Mr. Adams was born in Pawtucket on February 22, 1876. He attended the public schools there and entered Tech in 1895, graduating in 1899. He then went abroad to complete his architectural training in Paris and on the continent. After his return to this country he was associated for a time with the office of Peters & Rice in Boston and for about eight years, with McKim, Mead & White, of New York City. He then went to Providence, where he at first

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1899 Continued

associated himself with Clarke & Howe, later opening offices for himself; and finally, in 1912, he became a member of the firm of Jackson, Robertson & Adams.

Mr. Adams was a man of marked ability in design. His professional ideals were very high, and he constantly strove to maintain them. He was an inspiring teacher to the draughtsmen who had the privilege of working under him, and the interests of his clients were always foremost in his mind. His work shows worth, ability, and artistry, and in his death a most promising career has been cut short.

Mr. Adams was an active member of Grace Church parish, of the American Institute of Architects, Providence Art Club, and Agawam Hunt. At the time of his death he was Secretary of the Rhode Island Chapter of the American Institute of Architects. This Chapter passed the following resolution: "Whereas, Almighty God in His Wisdom has called away one of our number, our esteemed associate, John Howard Adams, be it

"Resolved, That we of the Chapter sorrowfully and affectionately do record the loss of one whom we have honored for his conspicuous attainments in the field of architecture, and whom we have loved for his lofty character and ideals, his ever-sunny disposition even in times of adversity, and his delightful companionship; and be it further

"Resolved, That to those bound to him by the tender ties of home, we extend our heartfelt sympathy. Rhode Island Chapter, American Institute of Architects, John Hutchins Cady, President."

Mr. Henry Eaton, Assistant Secretary of the Class of '99, has left for St. Louis on an extended tour of duty with the Pierce Petroleum Corporation. A. H. Brown, 53 State Street, Boston, has accepted the office of Assistant Secretary, Mr. Eaton having resigned in order that someone nearer to Boston might take the office.

Major W. H. Hinman of 15 Oxford Road passed away on December 17 at the Albany Hospital after a short illness. He was a graduate of Andover and Tech, and was in charge of the Engineering Department of the McDonald Meter Company.

During the war he held a commission in the Regular Army as Major and was officer in charge of the small arms ammunition of the Remington Arms A. M. C. Company of Bridgeport, which produced three-fourths of all the small arms ammunition sent abroad from this country. He built up the entire organization and for his wonderful and efficient work he received an official citation from the United States Government. He was a member of the Buffalo Ordnance District with headquarters in Albany.

Among the many organizations of which he was a member were The Veterans of the 7th Regiment, New York, The Technology Club of Eastern New York and The University Club of Bridgeport, Conn. For three years he held the championship of the 7th Regiment for sharpshooter.

Major Hinman was a man of unusually fine physique, a great lover of the woods, and a true gentleman and sportsman in every sense of the word. He had hunted throughout Canada, New Brunswick and Maine for many years and owned some magnificent trophies; and he was also a great fisherman. When only a young lad, he performed the unique feat of walking through the Garden of the Gods and ascending Pikes Peak alone (the first person to do so this century) returning through the Garden again all in one day.

Major Hinman was a particularly lovable man of the highest ideals, who will be sincerely missed by his many friends both in Albany and Bridgeport. He is survived by his widow, Florence Belle Hinman.

W. Malcolm Corse, *Secretary*,
1901 Wyoming Avenue, Washington, D. C.
A. H. Brown, *Assistant Secretary*,
53 State Street, Boston, Mass.

'00 No notes have been received by The Review Editors from the Secretary of this class for inclusion in the February issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to George E. Russell, Secretary, at Room 1-272, M. I. T., Cambridge, Mass.

'01 The Class of 1901 held an informal dinner on the 17th of December at the Engineers' Club. Several familiar faces were missing for what were undoubtedly excellent reasons. Frank Walker, Willard Dow, Neddie Seaver, and Austin Hyde started the evening in company with your Secretary, while a few minutes later Fred W. Connolly joined the group. After a modest repast, albeit palatable (this is not to be interpreted as any reflection on the sumptuous repasts at the Walker Memorial which are now apparently a permanent addiction of the Alumni Association) we resolved ourselves into a Committee of the whole. The business of the evening was a discussion of plans for the anniversary of the

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1901 Continued

class, which anniversary is to be held in connection with the All-Technology Reunion this June. Much progress was made. We settled upon Wianno as the place, and June 8, 9 and 10 as the dates. As the reunion is the 11th and 12th, this gives nearly a week of uninterrupted gaiety. All of the members present pledged themselves to attend, and as we can count definitely on every man who assisted at the Twentieth Reunion, we already have a nice little nucleus. Your Secretary will communicate the details to you in the near future.

Turning now to other interesting news, I quote the following from a letter from Professor Locke: "Another man whom I saw in El Paso was Charles I. Auer, '01. He has been associated with Critchett and Ferguson for about twenty years and has had considerable interest in developing mines, especially in Mexico. Just now he has one in Chihuahua, which looks very promising, and if it comes through as anticipated, he is planning to make a trip East with his family to attend the big reunion at Technology in 1925 and also his Twenty-fifth Class Reunion in 1926. He reports that his family consists of his wife and a daughter eighteen years of age."

George Harris registers a change of address to 267 Crescent Street, Northampton. As George used to be in Easthampton he still has two degrees of freedom without beginning to box the compass. George, addressing me formally as "Mr.," has just severed his connection with the West Boylston Mfg. Co. after a twenty-two year tenure of service. He adds that the last twelve years he has been in charge of purchasing for maintenance. I cannot but feel that this is a mistake if one's neighbors are interested in poultry and in vegetable gardens. And even in what is simply known as the "purloos" of a great city, there are many opportunities for the sportsman.

F. R. White is with the Traffic Department of the New York Telephone Company. He sadly registers his address as 15 Dry Street, if I read his flowing hand correctly. It may be, however, that the thought was father to the deed.

Philip Wyatt Moore sends the joyous news that he has moved from his private road to Hubbard's Woods. Phil is evidently still seeking seclusion. I don't know the neighborhood but I bet it's refined. He writes gloomily of the business situation and recounts with gusto a quiet meeting when he, Perk Parrock, and the writer forgathered most pleasantly. He adds that he met Will Kelley on the train and finds that they live in the same town and so hopes to see him again. I am sending Kelley a full set of Fenimore Cooper's novels and also the Boy Scout Manual. Skilled in woodcraft he may really effect another meeting. Both Phil and Will (how eu-

phoniously that lilts from the tongue) are planning to take part in the anniversary. Phil was one of the stalwarts of the Twentieth Reunion and is a foundation stone of the one to come.

Neddie Seaver says he is a sales agent here in polite language. Anyone who has ever heard Ned discourse earnestly knows that the adjective is pure optimism. To get him at his bland best, however, one should awaken him at 2:30 in the morning and then be convoyed in his trusted deep-sea going car some ninety miles. His remarks on the sunrise would constitute a breach of the peace had there been any earlier in the night. With tender recollections of the Twentieth Reunion, Ned is planning to take in the next one without fail.

Al Sulzer is helping George Eastman make money for Technology and has been engaged in this pleasing pastime since graduation. Al writes that his favorite outdoor sport is the encouragement of the lawn around his new house. He ought to write to duPont for one of those prize sheep as a substitute for a lawn mower. When he adds, however, that beyond a few fishing trips to Canada he is putting in a humdrum existence, I cannot regard him as an object of sympathy. After all, Al, at our time of life the recuperation period is perceptibly lengthened. Al is coming back to Boston in June of this year to look over the details of what he and George have done for Tech.

Jack Eveland, once again in Mexico with headquarters at the University Club, writes that he is still investigating the claims of various liars in regard to mining properties in Mexico. Jack also writes that he has become the proud father of a son, also a Jack, of the Class of '45, M. I. T. Jack hopes to attend the anniversary but son will wait until the class catches up with him.

Perk Parrock is apparently one of the really busy members of the class. Since leaving the Drapers he has started a consulting practice in the design, construction, and management of iron, steel, and brass foundries. Apparently things are going extremely well, for whenever I try to reach him for a little forgathering I find that he is dashing off to nurse some invalid plant or is even then sitting by the bedside and smoothing the pillow. While we must all rejoice in his success, I for one wish that he might have a few moments of freedom. My last communication from him was from Troy, N. Y., where he was performing certain grisly but necessary acts on a moribund foundry.

Harry Dart is still in Hartford but is entirely noncommittal as to details beyond the pleasing intelligence that "Enclosed," etc.—Frederic Roy Courtney Bayd, President of the Class of 1901, Vice-President and Engineer of the Power Equipment Company, and holding a number of civic and fraternal posts of dignity and authority, conveys to me certain glad intelligence in his usual inimitable style but couched in a form which precludes reproduction upon these pages. Freddy is planning to direct the approaching anniversary and was unanimously elected to the position which he filled so admirably four years ago. If the sparkling repartee with which he and Joe Evans entertained the assembly could be reproduced in vaudeville, it would be in the language of our leading Shakespearean commentator "A Wow." Alas, that spontaneity, that sparkle which is Freddy's peculiar birthright, could never be adequately duplicated by another.

This screed is written on the Eve of the New Year. I take much pleasure in extending all of the felicitations of the season to the members of the class. Particularly fortunate is the coming year for it sees once more a reunion of that band of choice spirits (this is not a subtle allusion) who are of the Class of 1901. The anniversary impends.

Allan Winter Rowe, *Secretary*,
295 Commonwealth Avenue, Boston, Mass.
V. F. Holmes, *Assistant Secretary*,
131 State Street, Boston, Mass.

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'02

Pendergast is studying at the Harvard Graduate School, this year, taking advanced work in Economics. His special interest is in the line of forecasting business conditions. During the college year Pendergast's address is 7 Craigie Circle, Cambridge, Mass.—Gardner Rogers has shifted from the Pawtucket office of the Blackstone Valley Gas and Electric Co. to the home office of Stone & Webster, leaving the entire responsibility for the Rhode Island proposition (as far as '02 is concerned) on the broad shoulders of Nelson, (E. E.). Rogers' home address is 75 Clinton Road, Brookline, Mass.—Don Belcher has moved his home from Winchester to the neighboring town of Arlington, where his address is 64 Old Mystic Street.—Walker reports running into Joe Ballard on a train going North from Springfield, Mass. While chatting with Joe the latter noted a familiar form further forward in the car and Charlie Stover was added to the group. An impromptu class reunion was held, lasting till the party broke up at Northampton.

Frederick H. Hunter, *Secretary*,
Box 11, West Roxbury, Mass.
Burton G. Philbrick, *Assistant Secretary*,
276 Stuart Street, Boston, Mass.

'03 On December 11 the Boston section of the class held an informal dinner at the Copley Square Hotel, where we had a private room and the following men attended: Aldrich, Gleason, Clark, George Green, Jackson, Scholtes, Stiles, Nutter, and Nyhen. The outstanding feature of the eatables for this occasion was the donation of three roasted wild geese which Gleason had shot at his gunning stand at Duxbury. They were tender and tasty and the crowd did full justice to them, but even at that, plenty was left for the other men who promised to show up and could not do so. A very enjoyable time was had by all present and it was voted to have another dinner in February.

About Thanksgiving time Tom Sears was run over by an automobile and suffered a compound fracture of the left leg so that he spent a month in the hospital and at this writing (December 26) has just got home and is beginning to use crutches.—I. F. Atwood was at home sick with the gripe at the time of our dinner, but is now back at the office.—The Secretary makes a special request for news items at this time.

Chester S. Aldrich, *Secretary*,
10 Beaufort Road, Jamaica Plain, Mass.
Gilbert H. Gleason, *Assistant Secretary*,
25 Huntington Avenue, Boston, Mass.

'05 In this radio age, when most of us are spending our evenings with the best set ever built and the following mornings telling how clearly Tasmania came in, it is interesting to know that the possibility of the present high-power broadcasting and long-distance receiving is in a large measure due to the success of an '05 man in developing the high-power tube. Will Houskeeper tells us about it.

"I got mixed up with vacuum tubes early in the war. We had to start a factory here in New York for the manufacture of tubes for airplane communication. Because of my previous work on incandescent lamps, I was given the job of starting the new tube factory. This meant the layout of the apparatus, ordering machinery, design of new equipment, installation, hiring and instructing of new operators and all the grief that inevitably accompanies starting something new under pressure. Anyhow, we finally got underway and I was able to withdraw from the production end of the work and concentrate on new design and new methods.

"In the exhaust of the vacuum tubes, pumps are used which reduce the pressure to just about nothing. Our unit of pressure is in terms of the height of a mercury column which will give the same pressure. Thus atmospheric pressure is 760 millimeters. If there are no leaks in the exhaust system, the pumps have no trouble in reducing the pressure to 10^{-6} millimeters. That is, they take out all but one part in 760,000,000 parts that were in the exhaust system at atmospheric pressure. We had a laboratory set up where pumps could be tested, but the method involved the use of a highly sensitive reflecting galvanometer and a 200-volt battery. Certainly not a way for easily testing pumps in commercial production. After a bit of work I managed to reduce the apparatus required to portable instruments and to run the set directly from the house lighting circuit. So now, when we want to test a pump, the gauge is sealed to the exhaust system and the portable test set is brought to the station and we can watch the variation in pressure produced by the pumps as they operate. The pressure is indicated continuously by the deflection of an ammeter. After that, by hooking up two gauges on either side of an orifice, I had a portable set up which would continuously indicate the pump displacement in cubic centimeters per second.

"With the close of the war, we began to start work on tubes of larger capacity. For wireless work the tube assists in producing high frequency alternating currents. For this production, the tube is associated with an electrical system which will oscillate in such a manner that with every oscillation the tube feeds energy into the oscillating system in a way much as the escapement delivers energy to a clock pendulum. The tube acts as a valve through which energy is delivered to the oscillating system. Of course, the more energy a tube has to handle, the larger it must be. We knew that the tube was not efficient, since quite a bit of the energy delivered to it was lost as heat, this heat appearing in the plate of the tube. After we had built a 50 watt and a 250 watt tube we felt that we had about reached the limit in plate size. The plates were running in vacuum and were dissipating about ten watts per square inch of surface, of course, at a red heat. We had, of course, realized that simple radiation, upon which we had to depend for our cooling, was relatively a rather poor method. If we could by some means make a tube in which the plate was in vacuum on one side and directly in contact with water on the other side, then we certainly could get rid of much more heat from the plate. I got the job of designing mechanically a tube which could be cooled by water. To make a long story short, I finally built a tube by using a method, which I had previously developed, of sealing glass directly to copper. Using this method, I built a tube in which part of the enclosing bulb consisted of a piece of copper tubing. This tubing was also the plate

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1905 Continued

of the tube and could thus be put in a bucket of water and kept cool by direct contact with the water. In this way we had a plate which would easily dissipate 1400 watts per square inch compared with 10 watts per square inch of the previous method of construction.

"We made a number of tubes from the final experimental design and these were used in the Transatlantic phone tests of a year ago last January. A modification of this design is now being produced in quantity manufacture and used in the 5-kilowatt sets which our company is manufacturing for broadcasting."

Bill Green's address is 34 Spring Street, Gloversville, N. Y.—Herbert Files is still with Cross and Brown with a new location, 270 Madison Avenue, New York City.—Ben Lindsly should be addressed care of U. S. Bureau of Mines, Bartlesville, Okla.—Bob Farrington is back from a trip around the world in search of the very best place for the '05 Reunion. There are several possibilities.—Dr. Scott C. Runnels is now at the Huron Road Hospital, Cleveland, Ohio.

John Damon, who was with Stone & Webster in Boston, is now Electrical Engineer, American Brass Co., Waterbury, Conn., and is living in Cheshire, Conn. This information comes in a letter from Mrs. Damon (remembered by those at the last reunion) with whom we shall be delighted to conduct the class correspondence in case John is too busy.

Fred Bennett who has an office in Mineola, N. Y., and a home in Far Rockaway, says that his firm has put in water systems for several municipalities on Long Island to the extent of about \$3,000,000. We didn't suppose there was that much water works on the island. He says he frequently sees Files and, further: "I met S. Henry Ayers a few weeks ago and he made me believe that he was wedded to his professional work, but a few days later I received an announcement of his marriage to a Philadelphia queen."

Now that is odd for we, too, have heard from Ayers and, again, he sticks strictly to business, as follows: "After fifteen years in research work along the line of the bacteriology of milk in the U. S. Department of Agriculture, I left to accept a position as Research Director of the Glass Container Association, 22 East 75th Street, New York City. In this position I have the direction of the Research Laboratories of this association. The work of the laboratories deals with problems involved in packing foods, soft drinks and drugs or other products in glass. Most all the work is of a research nature and is very broad in its scope."

In view of the fatalities in the laboratory of an oil company, attributed to lead tetra-ethyl and the predictions of danger ahead by various technical authorities, it is reassuring to note what Doc Lewis said in an interview published in a Boston paper.

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"The danger in the distribution of tetra ethyl gas is non-existent. The extensive use of this lead compound in gasoline would not lead to a chronic lead poisoning as some authorities have predicted. Insanity and tuberculosis would not increase, and, if anything, the general health of the population as a whole should be bettered."

"When ethyl gas is burnt in automobile engines, very fine particles of lead oxide are formed. Part of this substance remains in the cylinder of the engine; some is left in the muffler, but by far the greatest portion of it is disseminated through the air as very fine particles of lead dust."

"A person would have to be exposed to the exhaust gases of an engine burning ethyl gasoline for twenty-seven hours before any sign of lead poisoning would be noticeable. Before this time would have expired, the carbon monoxide in the gases would have proved fatal."

Dick Marsh's "White Indians" from Panama, not content to start a war among the anthropologists, have now presented a problem for the philologists. Linguists of the Smithsonian, who have been reducing this hitherto unstudied language to writing, have discovered a large group of words that resemble Norse almost identically in both sound and meaning. Did they have Norse teachers or were there Vikings among their ancestors?

Charlie Leavitt emerges from the Weymouth woods long enough to dash off the following: "For seven years up to two years ago, I rotted in the New York Navy Yard. That place is a typical old women's home, nothing to do but gossip, like a flock of old hens. Then I worked at the Staten Island Shipyard for a year. I have a twelve-acre farm in Norwell that is in pretty good shape. The only trouble with that is that I go chasing off to the Shrine Convention in June and the weeds grow like — while I am gone."

"Regarding the fiddle. I found I wasn't much of a player when I got to New York so turned to the banjo and did a lot of work on that. Also played French Horn a good deal. Played with the Manhattan Beach Band one season. At present, I seldom get any professional playing as I am too far out of the city. Any time you see the Aleppo Shrine Band you will find me near the old fellow with the whiskers, known as 'Tke.'"

W. S. Richmond, Consulting Engineer, 407 Central Life Building, Ottawa, Ill., writes: "Last April I resigned from government service for the fourth time, and moved to this city to become Treasurer and General Manager of the Marseilles Land and Water Power Company. Our office is located in the City of Ottawa, Ill., at the address given above, but our water power and hydraulic plant are located at Marseilles, Ill., about eight miles east of this city and approximately eighty miles southwesterly from Chicago. We have the only developed water power on the Illinois River. At present, we are selling most of our power to three concerns, namely: The National Biscuit Company, The Certain-teed Products Corporation, and The Illinois Power and Light Corporation."

"My duties cover quite a wide variety of matters, including superintending the operation of the plant. There is enough engineering work, particularly along hydraulic and hydro-electric lines to keep up my interest in my own profession."

"For several years I have done more or less consulting work, usually less. In this position I have the opportunity of doing outside work, and at present have one very nice engagement along the lines of hydraulic and sanitary engineering."

"Last winter, before moving away from Buffalo, I had a fine visit at the University Club with Bill Spalding, Houck, Cowper and Allen Merrill. I have seen Theodore Green several times during the past two or three years."

Roswell Davis, Secretary,
19 Thorndike Street, Beverly, Mass.
S. T. Strickland, Assistant Secretary,
26 Pemberton Square, Boston, Mass.

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'07 A recent letter from John M. Frank, speaking of A. N. Rebori, '07, states that he has become quite a famous architect in Chicago, his firm being Rabori, Wentworth, Dewey, & McCormick. Rebori has done a number of outstanding buildings in Chicago. He has just completed the Racquet Club Building. John encloses a proof sheet from a new catalogue which his own concern, the Ilg Electric Ventilating Co., is getting out, showing pictures of this Racquet Club and also of the Oak Park Club in Oak Park, Ill. Both of these clubhouses are equipped with Ilg apparatus.

John further states that George Bryant has his office at 1510 Otis Building, Chicago, and that Sam Marx is at 108 N. Dearborn Street, Chicago.

The Secretary has received a two-page typewritten bulletin from Lauzier, Wolcott & Co., brokers, of 51 East Broadway, Butte, Mont., setting forth the attractions of Montana, "The Treasure and Pleasure State." This interesting article was prepared by C. J. Trauerman, '07.

Bryant Nichols, *Secretary*,
2 Rowe Street, Auburndale, Mass.
Harold S. Wonson, *Assistant Secretary*,
W. H. McElwain Co., Manchester, N. H.

'09 Now is the time to begin to make your plans for attending the All-Technology Reunion this coming June. Last year at our Fifteenth Reunion, we had over fifty in attendance. This year, with the added attractions that go with a general reunion of all classes, we ought to have a still greater number. Have any of you fellows any suggestions as to what we, as a class, ought to do? Shall we have a little party of our own before or after the big reunion? For how long? These are some of the things your committee is thinking about. A line to the Secretary will be greatly appreciated.

George Bowers dropped in the other day on his way to Birmingham, Ala., to look over some castings for the Cleveland Water Works. George is still located in Cleveland, and is engaged in the building of a new filter having a capacity of 165,000,000 gallons per day.—R. W. Riefkohl has just returned from France, where he has been studying two years at the École de Guerre.

"Dr. Dolittle's Circus," the fourth in Hugh Lofting's remarkable series of books for the young folks, has just made its appearance. This book tells of the doctor's adventures with his animal friends

as part of the greatest show on earth. The author himself contributes the numerous illustrations that add much to the joy of the book. Your Secretary can testify to the appeal which the earlier books of the series made to his own boys, and can recommend them to the other fathers in the class as being of a special interest, having been written by one of our own classmates.

G. M. Gadsby, Vice-President of the West Penn Power Company, was elected President of the Pennsylvania Electric Association this fall. Gadsby was made Vice-President of the West Penn Power Company and other power companies in the West Penn System, having charge of the commercial work of the companies. He has been active in the affairs of the Pennsylvania Electric Association since 1918, having organized the first commercial section and served as chairman of the special power survey committee, representing the association in work with the Giant Power survey board and work in conjunction therewith by the Public Service Commission.

Malon P. Whipple, who has been employed for the past fourteen years by the Firestone-Apsley Rubber Company, at Hudson, Mass., first, as chief chemist, and later as assistant superintendent, superintendent, and development manager, has left that organization and has purchased an interest in the Wales Company, of Newton Centre, manufacturers of jams and jellies. He is to be treasurer and general manager of the latter company. Whipple is a graduate of Bowdoin in 1907, after which he spent two years at Tech, where he specialized in the chemistry of foods.

Franz Schneider, Jr., is financial editor of the *New York Evening Post*. Commenting on him, Philip Schuyler in the *Editor and Publisher* attributes his success in financial matters to his style of readability and the aim to state financial news in a manner which is within the range of the average person.

Charles R. Main, *Secretary*,
200 Devonshire Street, Boston, Mass.
George A. Haynes, *Assistant Secretary*,
186 Lincoln Street, Boston, Mass.

'10 Your Secretaries have not been idle. We have written thirty letters this month and hope before long to have a nice gossip little column under 1910 notes. Get in touch with your Class Secretary at least once a year; the class is more than a memory. We were in the making then, but are accomplishing now. The varied fields into which our activities

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1910 Continued

have carried us offer interesting possibilities for coöperation. Each of us should know where the others are and what they are doing.

Following is a letter received from Philip Devlin: "I hardly know what sort of dope you want and am not much of a hand at tooting my own horn. However, if it will help you in your work, here goes. I left M. I. T. in the spring of 1907, due to ill health, and the following year took my Sophomore Architecture at Tulane University, at New Orleans. I discontinued the study after that year and went into business. This made me Class of 1910 both at Tech and at Tulane. I am a member of Tau Lambda Chapter of D. K. E. at Tulane, and the Louisiana Club of New Orleans as well as a non-resident member of the New York DEKE Club. I was married in 1912 to Miss Frances Moore and have three little Devlins now anticipating Santa Claus' visit.

"After leaving Tulane, I was with Cluett Peabody Company's New Orleans branch until the spring of 1909, at which time I became connected with the Gillican Chipley Company, also of New Orleans, and was with them for over fifteen years in various capacities. For the past six years of this connection I was General Auditor for them and their numerous subsidiaries. This connection was severed on August 1 to enter into a partnership with Mr. R. V. Whittaker, in the practice of Public Accounting and I am now located in Jacksonville as Resident Manager of our branch office here."

Here is another letter, this one from F. A. Dewey: "In the years since graduation I was first an engineer, then a graduate student at Columbia, then an Instructor at Bryn Mawr College, where I met Mrs. Dewey, and then a clerk in Wall Street. During the war I joined the Army under my cousin, Bradley Dewey, 1909, and fought the Battle of Washington and of Long Island City. There was a lot of hard work to do, but it would have been a great satisfaction to have gotten overseas. When the war was over I went back to Wall Street, first with a stock exchange firm and then with the bond house of Marshall Field, Gore, Ward & Co., a firm composed of young men who are making a great success of the business.

"About three years ago I came with The Farmers' Loan and Trust Company, an old-fashioned institution with many very fine accounts. It was the first institution in the United States to be granted corporate trust powers and its history as a bank dates back for over one hundred years. About two years ago I was made an Assistant Vice-President and I have charge of what is known as the Investment Department, a branch of the bank that takes care of the investing of the money both for the bank itself and for its clients and

trust funds. The work is interesting, particularly in active markets. The problems are various and frequently not easy of solution."

Eight of the boys turned out to the annual dinner. They were Herb Cleverdon, Professor Jack Babcock, Gorton James, Dean Peabody, Charlie Green, Berg Reynolds and your Secretary and Assistant Secretary. The coming reunion was discussed and it was the opinion of all present that we should plan an outing of some sort. Charlie and Herb were appointed on the Reunion Committee along with the secretariat (that's a good word isn't it?) and the work of getting things in shape will begin to commence.

The first and foremost thing to be done is to get some money into the till. The treasury has lacked thirty odd dollars of having anything at all for several years. It is now the painful duty of the Secretary-Treasurer to try to garner in a few shekels to go on with. The system of having annual class dues never did work out satisfactorily and was dropped some time ago. The plan is now to appeal to every member of the class to send in his check for three dollars—more if he feels so inclined, and less if he cannot afford that much. If we are to make this a real reunion, advertise it effectively, and arouse enthusiasm, we must have the sinews, so please do not forget to come across.

Dudley Clapp, *Secretary*,
10 Water Street, East Cambridge, Mass.
R. O. Fernandez, *Assistant Secretary*,
264 West Emerson Street, Melrose, Mass.

'11 Maybe we '11-ers weren't proud of our own Dick Ranger when we read the Sunday papers on the first of December and saw that he had played a big part in the success of the transatlantic photoradiograms sent and received under the direction of the Radio Corporation of America. Our Review editors were onto their jobs, as usual, and of course you all saw the excellent picture of Dick and his receiving device on page 119 of the January issue. To quote Aleck Yereance who thoughtfully sent to ye sec some excellent clippings from New York papers: "We'll all be glad we can say we knew him when he was trying to make a machine to sell copies of *The Tech*."

Wednesday evening, December seventeen, was the marriage date of our classmate, William C. Davis, Jr., and Miss Mary Louise Anderson in the First Presbyterian Church, Mount Pleasant, Tenn. As I wrote Davis, we certainly all wish him and his wife every happiness and success.

Amplifying brief data at hand for inclusion in the last set of class notes, the following clipping from a recent issue of *The Iron Age* is of interest: "Marcus A. Grossmann has become affiliated with the Metallurgical Department of the United Alloy Steel Corporation, Canton, Ohio, in charge of the Research Division. Since his graduation from the Massachusetts Institute of Technology in 1911, Mr. Grossmann has been actively engaged in research work, specializing in alloy steels. He was formerly chief metallurgist of the Electric Alloys Steel Co. and the Atlas Steel Corporation."

Professor Charles E. Locke, '96, of the Mining Department recently had a letter from our classmate, Tom Killion, in which Tom reported that he is now located in Shanghai, but hopes to make a trip back to the States in 1925. He further reports that matters have been much upset with him for some months past on account of the war outbreaks in China, which has resulted in tying up communications so that very little cargo can be moved. Consequently, stuff piles up and losses ensue. What they make at one time in the way of profit seems to just about carry them over until the next sale.

Our good old friend, Calvin Eldred, has recently accepted the position of mechanical superintendent with the Hollingsworth & Vose Company, having paper mills at East Walpole and West Groton, Mass. He is located at the East Walpole mill, having severed his connection with the John A. Manning Paper Company, of Troy, N. Y., and made his new connection early in December.

Had two delightful calls at my office at Tech from classmates in late December. F. C. Harrington, I, home for Christmas with his parents here in Boston, dropped in two days before Christmas, shortly after reaching the East from Cheyenne, Wyo. He is with the Union Pacific Railway out there and is out in the open a whole lot. At his doctor's advice he says he has been, and is leading a chaste life, etc., and as a result is much improved in health. He certainly looks awfully well right now, although he has had a real struggle to get back his health following the war. Then just after Christmas I was delighted to have Rudolph Emmel walk in shortly after his arrival here from South America. He and his wife and eleven-year-old daughter are planning to be in the States for a short while, while Rudolph is handling some business affairs for his company, before returning to Guayaquil, Ecuador, where he is a mine superintendent for the South American Development Company. He is most enthusiastic about his work in the gold mine he has charge of, but says it is fine to get back in the States, every so often and particularly fine to get back to Tech.

Have just discovered that L. G. Fitzherbert is back in the Hub—has been for some time. He is special agent for the Home Life Insur-

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Arthur C. Kenison '19
ASSOCIATE MEMBER OF
Moore & Summers
97 Milk St., Boston, Mass.

1911 Continued

ance Company, with headquarters at 40 Broad Street, Boston.—Harry Lewis has again joined forces with John F. O'Malley, architect, in Providence.

Had a fine letter lately from Dennis Mahoney, from whom we haven't heard for a long time. He is chief appraiser for the Pennsylvania Joint State Land Bank in Philadelphia and lives in Camden, N. J. He reports that he has "five prospective Tech students for about 1936 to 1941—three girls and two boys."

It certainly was good news to learn from a Christmas greeting card that our classmate and ardent supporter, Kanezo Goto, is now a Rear Admiral in the Imperial Japanese Navy, with his headquarters at the Navy Department, Tokyo. He is a life member of the class and also of the Alumni Association.

We just fell one shy of having eleven eleveners at the annual alumni banquet in Walker Memorial this year, the following attending: Walter Arthur, Oberlin Clark, Dennis, Calvin Eldred, Rudolph Emmel, Dick Gould, Jack Herlihy, Charlie McManus, Harold Shaw, and Gordon Wilkes. Although no definite suggestions were made, it seemed to be the consensus of opinion of these ten that it would be a good plan to arrange for a 1911 week-end party on June 13 and 14—that is, the Saturday and Sunday following the big 1925 All-Technology Reunion. A few other classmates have also written in favoring such an outing and in that connection if you have an idea along this line, think of three letters, meaning "Write to Dennis" and then—obey that impulse.

Orville B. Denison, *Secretary*,
Room 3-207, M. I. T., Cambridge, Mass.
John A. Herlihy, *Assistant Secretary*,
588 Riverside Avenue, Medford, Mass.

'12

Will each one who reads this sit down and write your Secretary your suggestions for a reunion of 1912 to be held in connection with the general reunion at the Institute this summer? Let us get together and put in an extra day or so if you want to do it.

Jay Cather was married on October 4 to Miss Elizabeth Shedd, Wellesley, '21. After a pleasant honeymoon at the Mt. Placid Club they returned to their new home at 86 South Union Street, Rochester, N. Y. Cather is an Engineer in charge of the Power Department of the Eastman Kodak Company.

Any one of you now coming to town can locate your Secretary at Newton North 5400. We have just moved into our new plant located near the Arsenal in Watertown. Be sure to give us a ring.

Frederick J. Shepard, Jr., *Secretary*,
568 East First Street, South Boston, Mass.

D. J. McGrath, *Assistant Secretary*,
Technology Club of New York, 17 Gramercy Park, New York, N. Y.

'13

The birth of four class babies is announced: Josephine Gage on August 4, Donald L. Howie on November 5, Mary L. St. John on June 11, 1923, and Richard Carleton Smith on April 22. Richard is Allison Smith's fourth child and the latter shares with Bill Brewster and several others the distinction of having four children. To the childless, at least, these men are real heroes.

Walter Wright Alley, IV, lost an infant son on September 3. Walter is in the office of Paul C. Pape, architect of Los Angeles.—The Secretary dropped in on Jack Coe at the New York laboratory of the U. S. Rubber Company and found him having lost none of his old geniality and enjoying life in general.—Joe Strachan now commutes from Englewood, N. J., and helps to carry on the work of an important department in the organization of Sanderson and Porter.—It was the Secretary's pleasure to spend a day with Arthur Kenny and his family. Mrs. Kenny, then Marion Coes, was a student in Chemistry at the Institute during our time. The Doctor has two very nice children and is very happy in his surroundings both at home and in the physical laboratory of the du Pont Company at Wilmington.—H. M. Lawrence, III, has left Alaska and is now associate metallurgist for the U. S. Bureau of Mines at Reno, Nev.—John L. Kerr, VI, made a business trip across Canada in October.—L. E. Wright, '14, notes: "The gathering of the Northern Ohio Club brought out Arthur Carpenter who was the only other '13 man there. Last spring Cleveland's water supply was polluted with a phenyl-chloride produced by chlorinating the phenol which a steel company was dumping into the river. This condition made selling spring water the easiest thing I have had to do."—Al Brewer, III, writes: "Glad to be among the Elite '400'. Increased my contribution to future Tech 'Grinds' when my second boy was born about a month ago. Saw Bob Leshner the other day, also Log Book Stan Parker at the steel show in Boston. Am still in the clutches of the oil

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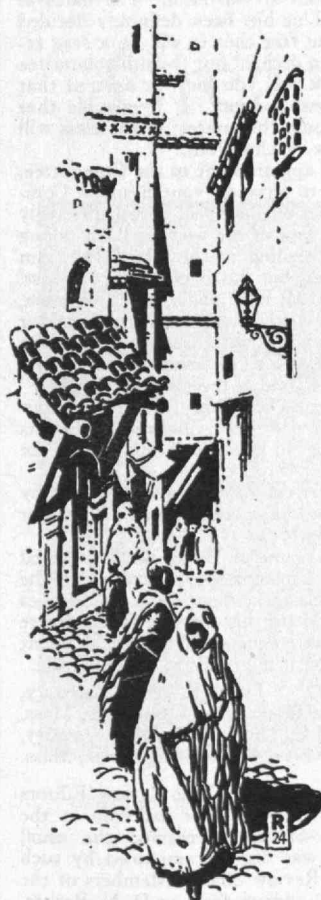
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1913 Continued

industry, but trying to write my way to an executive job. Going fine as an author at any rate. Plan to try to get to Ye 'Stute in a few weeks again."—Bill Flanders, I, has left Niagara Falls to become a partner in the R. J. Macartney Company of Lawrence and Lowell, Mass.—Phil Terry, X, is Vice-President of the Spalding Moss Company, Boston, dealers in blue printing and drawing materials.—Arthur Hirst, V, writes: "Nothing remarkable to write about. The cotton industry is dull, so all you '13-ers ought to get out and buy some cotton shirts (preferably printed). Note the greater durability than silk (apologies to my friend Ken Blake). I am glad to hear that Art Bellis is prominent in the steel line, and would like to hear from him, wherever he is located. I'm at the same old stand, American Printing Company, Fall River, Mass."—Bob Bonney notes: "Living near Philly so of course have comparatively little excitement. Still looking after technical end of Congoleum-Nairn, Inc., congoleum and linoleum manufacturers."

Fred D. Murdock, *Secretary*,
30 Bartlett Avenue, Arlington, Mass.

'14 How the months roll around! Merrily we——! No we don't. If Fourteeners would only write a letter once in a while, we could all join in the chorus, but for some reason Professor Robinson's course in letter writing seems to have passed completely over the heads of members of our class. Didn't Jimmy Judge give every Fourteener attending the reunion a box of stationery? Try out a sheet this month and then we can have a real sociable column in the next issue of *The Review*.

On December 2 the Boston delegation met for luncheon at the Engineers' Club. Frank Ahern gave an interesting talk on "Insurance." As Frank didn't have any particular policy to sell, we all enjoyed the talk to its fullest extent. Those present were Waitt, Ahern, H. S. Wilkins, Atwood, Crocker, Dunn, and Richmond. Pat Adams was in Washington so that his inspiration was missing.

Several requests have been received for back copies of the *Fourteen Pointer* issued around our last reunion. There are still extra copies of all four issues which may be obtained by simply writing the Secretary.

F. C. Atwood reports the arrival of Betsey Frances Atwood on October 21.—Al Hanson reported the arrival, without name, of a second daughter last August. After a very careful study and without recourse to cross word puzzles the name of Evelyn Ann has been assigned to the young lady.—S. W. Stanyan came home to Boston from the Ohio Brass at Mansfield, Ohio, for the Christmas Holidays. He is sporting a new Packard straight eight sport model touring car.

Grand Prix Envois

Photographs of a number of the Grand Prix Envois which are in the possession of the Department of Architecture of the Massachusetts Institute of Technology may be had upon application. The prices of the photographs are as follows:

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20" x 24" \$2.75 each mounted on cloth

22" x 27" \$3.50 each mounted on cloth

Address Prof. William Emerson

Department of Architecture
Massachusetts Institute of Technology

491 Boylston Street

Boston, Mass.

There are some prosperous members of the class at least.—Another of the strayed Bostonians to return home was J. W. Horton. He, too, was looking well and prosperous.—It is your Secretary's sad duty to announce that Frank C. Cleverly was killed in an automobile accident last summer while touring the Adirondacks.—Bill Warren has moved to Providence, although still with the Phillips Wire Co., at Pawtucket, R. I.—I. H. Lovett, who is Associate Professor of Electrical Engineering at the University of Missouri, reports that he has been busy during the past two years working on a complete revision of the course.—C. G. Maier, who is with the Bureau of Mines, has been transferred from Salt Lake City to Berkeley, Calif.

Don't forget the All-Technology Reunion next June! From all reports it is going to be a humdinger.

H. B. Richmond, *Secretary*,
100 Gray Street, Arlington, Mass.
G. K. Perley, *Assistant Secretary*,
45 Hill Side Terrace, Belmont, Mass.

'15 Once in a while something happens which restores the Secretary's faith that there is a Santa Claus. A letter received from Carleton Eddy says that he has a dim recollection that once since graduation he sent some dues and as we are to have a Tenth Reunion we will need some money, so he sent us \$10.00. My sincere thanks, Carleton, you probably would have been approached a little later but such unsolicited support as this is very inspiring.

Howard Thomas and myself appointed a General Committee to start things going on the reunion. The first meeting was held at the Boston Athletic Association on Saturday, December 27. It was deemed best to make this committee most representative, consequently we believe that the following men will be able to put this over in good style. Practically every course is represented and hence personal contact can be established with every man in the class. Everyone in the class will know at least one member of the Committee. The Committee is as follows: Course I, Roy Hayward; Course II, Charles G. Norton; Course III, Gabe Hilton; Course IV, Alfred Nye; Course V, John Kelleher; Course VI, Clive Lacy; Course VII, Joseph Phelan; Course VIII, Horatio Lamson; Course X, Azel Mack; Course XI, James Tobey; Course XIII, Evers Burtner; Course XIV, Eastman Weaver. No word has been received from Gabe Hilton, as yet, but I know that his heart is in the right place, and that he will be on the job in good style. With the exception of Jim Tobey and Gabe Hilton the men are all local. The dates of the reunion are June 13 and 14. This has been definitely decided by the Committee together with the fact that it will be a stag reunion. The location has not yet been decided but the sub-committee on this has already done some work and you may be assured that every factor is being taken into consideration. It is possible that the first part of the campaign to arouse the interest of the class will be started by the time this Review reaches you.

In response to his notification of appointment to the Committee, Jim Tobey wrote as follows: "Glad to serve on your Reunion Committee, but cannot make the meeting on the 27th. I will probably be in town once in a while after the first of the year, as I am taking some graduate work at the 'Stute, leading to the 'Dr. P.H.' Am getting to be a regular degree hunter, but this is positively the last. Am lecturer in public health law at M. I. T., Yale, and Columbia, and have just completed a book on this subject. We added a daughter to our family on September 27, Sylvia Tobey, two boys and one girl now." Easty Weaver in accepting his appointment stated that Arthur Ball was in Rome, where he is taking the part of "Ben Hur" for Technicolor Motion Picture Corp. According to Easty, Arthur says that doing as the Romans do is slow work just now—consists largely of listening to "Yes, We Have No Bananas," and waiting for the sun to shine.

Evers Burtner announces the arrival of the first, Cynthia by name. He took a trip to England and back last summer as engineer on the Leviathan.

We see by the papers that Louis Young on December 6 discussed the new type accelerometers and displacement apparatus at the Everett High School before the Eastern Association of Physics Teachers. It may be that we would use his services to accelerate the reunion and if he could devise some means to tell the displacement of each member attending the reunion it might avert some damage.

Frank P. Scully, *Secretary*,
118 First Street, East Cambridge, Mass.
Howard C. Thomas, *Assistant Secretary*,
100 Floral Street, Newton Highlands, Mass.

'16 No notes have been received by The Review Editors from the Secretary of this class for inclusion in the February issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to D. N. Barker, Secretary, at 14 Marathon Street, Arlington, Mass.

'17 Lucius T. Hill, of the Flintkote Company, made an extended trip to Chicago, St. Louis, and Indianapolis recently, but did not run into other Seventeen men. He reports an unsuccessful attempt to reach Frank Peacock in Chicago.—Barney Dodge left Harvard in January to accept a very attractive offer from the Fixed Nitrogen Research Laboratory at Washington. He expects to continue his work with gases.—Don Friend has joined the Eagle Radio Company in Newark, N. J.

From the *Boston Transcript* for December 26: "Word has been received of the marriage of Professor Clair Elsmere Turner of the Massachusetts Institute of Technology, to Miss Naomi Cocke, daughter of William A. Cocke, a prominent attorney of San Antonio and Austin, Texas. The wedding took place in the University Methodist Church at Austin, Texas, on December 24. Mrs. G. L. Robertson, sister of Miss Cocke, was the matron of honor, and the best man was G. L. Robertson of Meridian, Texas.

"The bride has just completed her work for a degree at the University of Texas. Professor Turner, who is well known for his work in health education, was graduated from Bates College in 1912. He then entered Harvard University, where he received the degree of Master of Arts the next year. After completing an important research on the purification of streams, he was graduated from the Harvard-Technology School of Public Health, in 1917.

"During the World War he served as sanitary engineer, with the rank of first lieutenant, in the United States Public Health Service and after the war he was commissioned major in the Sanitary Corps Reserve.

"He is now Associate Professor of Biology and Public Health in the Massachusetts Institute of Technology and is a member of the Harvard, the Appalachian, and the Sojourners' Clubs. After a brief wedding trip, Mr. and Mrs. Turner will return to Cambridge for the opening of the Institute in January."

The Lynn (Mass.) *Item* for November 21 states: "Edward F. Twomey, Consulting Engineer of Morris Knowles Company of Pittsburgh, Pa., was married Thursday at a nuptial mass at 9:30 o'clock, celebrated by Rev. Father O'Flynn, pastor of St. Peter and Paul's church at Beaver, Pa., to Miss Esther J. Boodon of that place.

"Mr. Twomey was born in West Lynn and was graduated from Classical High School. He enrolled at Massachusetts Institute of Technology, graduating with the Class of 1917. He enlisted in the aviation corps, and after a brief period of training was commissioned a lieutenant and assigned to Buffalo, where he was in charge of the inspection of wood used in making propellers for aeroplanes.

"Upon his discharge from the army he entered the employ of Morris Knowles Company of Pittsburgh, and has since had charge of several large engineering projects in the South, among them being that done at Camp McLellan, Ala."

From the Fall River (Mass.) *Herald* for November 8 we quote the following: "Professor Edward P. Warner, Department of Aeronautics at the Massachusetts Institute of Technology, spoke under the auspices of the Council of Jewish women and the Young Women's Hebrew Association, at Franklin Hall, Fall River, on 'International Friendship'."

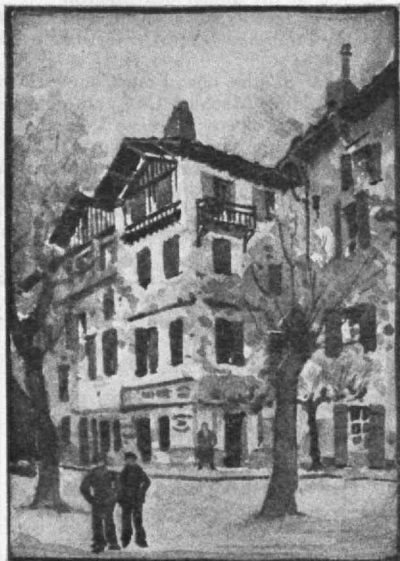
Hank Stagg says in part: "I've been struggling along for the Vacuum Oil Company for the past five years and it is true I do get up to Boston two or three times a year, and will be sure and look you up the next time I get in town. Have been on this trip now since October 12 and will be away until Christmas. Such is the life of a traveling man."

Ras Senter, writes: "I am now officing with my father and your letter addressed to me at Arlington has just reached me. Please write me hereafter at my new office, 408 Andrew Building, Dallas, Texas.

"Am out of the city most of the time and out of the State part of the time looking after some production which I have been gradually acquiring. As you know, I have been fighting the oil game about five years, trying to play the game on a business basis without resorting to stock promotions, etc. I now own jointly with other parties about 200 barrels daily production located in Texas and Arkansas, and am just starting a refinery located in south Texas. The oil business has been through one of the worst depressions in its history and for the last six months the price of crude oil has been the lowest in years. I haven't seen a pay day since I left the Army but I have had lots of fun helping to drill about twenty-five wells and watching them come in dry or producers. Every one is expecting a big year during 1925. In fact, the keynote of the oil business is 'optimism.'"

Raymond S. Stevens, *Secretary*,
30 Charles River Road, Cambridge, Mass.

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Sketch by Samuel V. Chamberlain
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Other articles that will be of interest are:

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Architectural Rambles in America
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'18 The letter which was broadcast to the members of the class, and which contained an appeal for its support, the support of the Alumni Association, and the payment of overdue pledges for the Endowment Fund, was a partial success. As to the support of the class, some fifty-three folks crashed through with a contribution of three dollars or more. Let us hope that this news will be so interesting to some of the crowd that have completed their Christmas duties and who have not, to date, sent their check to Julie Howe, that they will fall in line at an early date, so that the list will be doubled.

As to the support of the Alumni Association, there were some replies with checks, so that our quota of thirty-three new members was about forty per cent subscribed. Within a few days, I am going to write personal letters to a few of the non-paying members of the association in an effort to clean this up. A perfect average in returns from these letters will be necessary to insure success. Please bear this in mind if you get a letter.

The Endowment Fund appeal was the least successful of all. There were very few returns from this request, and the overdue pledges still remain at about fifty per cent of the original total amount subscribed by our class. If you have not already attended to this, please give it your earnest attention. In the list of pledges still unpaid, there are a great many in the range of five to fifty dollars, just the price of a party (varying from the movies and a trip to the corner drugstore for the married members of the class, to something more exciting for those who desire more excitement), so that it would be a big boost for the class average, if they were paid up, even at the expense of a quiet evening at home now and then. Let's get together on this.

The following clipping was taken from the *Boston Post* for November 9, 1924: "At the Church of the Redeemer, the Episcopal Place of Worship at Chestnut Hill, Miss Marion Harding, daughter of Mrs. Harding of 279 Hammond Street, Chestnut Hill, and of the late Louis B. Harding, was recently married to Frazer Muir Moffat, Jr., of Short Hills, N. J., son of Mr. and Mrs. Frazer R. Moffat. The bridegroom is a Williams College man and a graduate also of M. I. T. The bride is a graduate of private schools in Boston and a member of the Sewing Circle of her debutante season. As a Lieutenant, Mr. Moffat served in the World War."

Professor Charles E. Locke sent in the following clipping about Pete Sanger, abstracted from *Rock Products*, in the issue for November 15: "The G. M. Basford Co., industrial and technical advertising counselor, New York City, has announced that Alan B. Sanger will have charge of its department covering advertising of industrial machinery and material handling equipment."

"Mr. Sanger is a graduate of the Massachusetts Institute of Technology, and is a mining and metallurgical engineer, with several years practical experience in the mines, mills, and smelters. He was formerly a member of the advertising staff of *Rock Products*, which he represented in the East for two and one-half years. His name is familiar to *Rock Products* readers for his contributions to this paper, notably those relating to the slate industry."

"Mr. Sanger's practical engineering work, plus his advertising and sales experience, qualifies him to act as advertising counselor to manufacturers of industrial machinery and material handling equipment. His former associates have every wish for his success in this work."

Had a letter from Al Murray a few days ago. He spoke, or rather wrote, most interestingly of his work on radio research with the John Hays Hammond organization. It is entirely probable that we will hear big things of Al along these lines before long. It was a treat to hear from him.

P. W. Carr, Secretary,
400 Charles River Road, Cambridge, Mass.

'19 Though somewhat belated, I hope that you all had a very Happy Christmas and are well on your way to a Prosperous New Year. How about those New Year Resolutions? Are you still holding to them and did you make one that will help you to send in notes to your Secretary every month? Good!

The replies for class dues are being returned slowly but steadily. So far, seventy-three have sent their checks and many of you were good enough to add the proverbial "line." And now for news.

Joe Newell sent an interesting and lengthy letter from 311 Stillwater Avenue, Dayton, Ohio. He is interested in class doings even at that distance and writes as follows: "Here I am in the mediocre West just far enough away so I can't sneak a few extra days to attend the various class reunions of our renowned 1919 and still have enough vacation left to make the trip East worth while. But I may be East by 1929. I'm working at the far-famed 'Birthplace of the Airplane,' (the city that recently made the air races so unpopular) and for the past three years have been chasing stresses around through various airplanes to find out whether they would hold together, why they had held together, or in some cases why they didn't hold together. An airplane being a contraption that will, occasionally, get off the ground with a limited amount of load, you can readily see that for every pound saved in the weight of the power plant or structure the pay load is increased by one pound. The result is that very few reinforced concrete airplanes are being built as every ounce that gets into the darn things must be absolutely dependable, so dependable in fact that a column an eighth inch square can be designed and definitely counted upon to carry its share of the load. This results in a series of interesting problems in structures and structural design which are not to be found in any other branch of engineering as our basis of economy is not the dollar but the pound, — avoirdupois, not sterling. And as the dollar comes out of the ordinary species of tax-payer, it is, of course, a negligible quantity around McCook Field, except when it's time for an increase in salary when the powers-that-be suddenly discover that the mint has stopped coining the popular cartwheels of commerce so all hands must go unraised for another year or so. Bob Insley is the only other '19-er in town that I know of, and as we have a Tech Club that meets every two weeks for a luncheon at the Dayton Engineers' Club, I'd probably know of any others. Bob Litehiser hailed from these parts originally but he's not around here any more so I have no definite news of him. While I was in Boston this fall I saw M. P. Smith and his family, which at that time amounted to one wife and one son, but I didn't have time to look anyone else up. Here's hoping I get within easy walking distance of the locus of the Tenth Reunion." How about using an airplane to hop East for the reunion? It would save shoe leather, Joe.

D. A. Lundquist sends just a word about himself: "Sorry I couldn't attend the reunion last June but at that time I was out on the briny deep for a few weeks. Here is the 'line' you wanted: Have been working at the Boston Navy Yard for the past four years, am married and have a husky little embryo coed. If things break right, I hope to see you at the dinner next month."

E. R. Smith has left M. I. T. to take a position as Assistant Professor of Chemistry at the Louisiana State University, in Baton Rouge, La.

I was interested to hear that Staube, one of our Course IV crew, has deserted the Burroughs Adding Machine Co., and gone back into structural engineering with Lockwood Greene Co., at 100 E. 42nd Street, New York City. Staube says he was sorry to miss the reunion, too, but he and the doctor were on intimate terms at that time. I know a fellow who had his tonsils removed only last week, Staube.

W. S. Bailey's note is as bad as a cross word puzzle; you have to use a dictionary for both. But we gather that he is assisting

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1919 Continued

Professor Berry at Tech and "madly pushing a red pencil and attempting to explain entropy." He adds a postscript: "Single so far." When can we expect a change, Bailey?

Here's a fine letter from Alan McIntosh: "Glad that the class is getting a little money together. We appreciate hearing from the boys more every year and it all takes money and somebody's time. I have been travelling a lot lately. My firm has recently bought out a new electric moulder and I have been South with it ever since September. I very seldom meet any of the class for unfortunately the lumber mills are seldom near the cities. Remember me to any you may see and my telephone number in town is South Boston 1480."

R. L. Burbank and Flynn are doing their best to keep the Zinc Company of Palmerton, Pa., on the map. Fleming, Smoley, and McCarten have deserted them and Burbank writes that there is little news but he also sends his regrets for the reunion.

Buzz Mayer is very modest but contributes the following information: "About myself I can tell nothing of great interest. I am still a struggling young engineer now engaged in construction work here in New York. Just four weeks ago Natalie Rogers changed her name to Mayer, (girls will do funny things,) and we shall be living shortly at 120 West 58th Street, where you will be everlastingly welcome when you come to town. Circle 7968." Shall hope to see you in the spring, Buzz!

Anyone who thinks that Course IV has a cinch over in the Rogers Building should take careful note of this letter from C. C. Likins: "I feel as though I am now writing to one of the old gang who used to labor long after six o'clock up in the Rogers Building. I have not heard from any of the old bunch since we left school and no doubt they are pretty widely scattered. Would appreciate hearing from you any time you have any startling news about the Course IV bunch."

E. E. Richardson is employed in the Research Laboratory of the Eastman Kodak Co., in Rochester and I wonder how much his influence counted toward obtaining the four million and a half for Tech. Didn't you gain an inch in height when you read those headlines in the papers? Tech can certainly make good use of it!

Larry Dalton and Scott Keith are both anxious for the class to get together informally in different sections of the country sometime soon. Larry is at 1343 Tabor Road, Philadelphia, Pa., and Scott sends this good word along: "I still am assistant engineer

for Metcalf and Eddy in Boston. The only real news is the fact that on June 17, 1924, I became the proud father of a daughter. She is not to date in the flapper class, but she is going strong." Congratulations, Scott!—Dick Cashin is still with the Essex Aniline Works at South Middleton, Mass.

This sort of letter is the kind that makes class news newsworthy. It comes from Al Hough out in Pittsfield. "Two birds, one stone! There you are. I am sending along my buck for class dues and will also try to answer your letter in regard to news of XIII men. The second part is easy, as I believe there isn't much I can inform you of. Of all the graduates in XIII in my class, I think I am right in saying that only two are on speaking terms with ships and these are Mason Noyes, who is teaching naval architecture at Lehigh, and Lundquist at the Boston Navy Yard. Naval architects have been in as much demand since the war as harness makers in Detroit. Dusty Rhodes is in New York engaged in sales work and is still designing small boats, I understand. While at the steel exposition in Boston recently, I met Carlos Krebs demonstrating acetylene torches of the General Welding and Equipment Company. He is busy all the time; too busy to get married, he says. George Cann is helping to keep General Electric turbines at Lynn on the map. The last time I saw Mayer, he was all tied up in accounting work and is doing big things. As for myself, when I have not been installing time study at Pittsfield G. E., I found time to look up a lady and now have a two-year-old wonder-boy, of course. You will have to excuse me from comments on the others in my class, as they are 'beyond my ken.' Your idea of a get-together strikes me as good, but I think it should be a class affair, rather than by courses. Perhaps you meant it that way. Here in Pittsfield we have M. I. T. men, but not many of the same class. It looks like we would have to link up with Springfield or Albany. What's the matter with us getting in on a radio night? Several colleges have made good programs along that line lately. At any rate, I'll do my bit and fall in line. It gets rather lonesome up here for Tech men. I don't believe we see enough of each other."

From Appleton, Wis., John Stevens writes: "I have had a call recently from J. H. Kaiser, X; he is now selling paper filler for the Solvay Process Company. He has been working in their plant for the past five years, and from now on expects to handle the sales of this filler to paper mills. Another visitor recently was Guy Davis



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C. A. Dunham Co., Chicago

Boston Branch Sales Office: 136 Federal Street

Telephone: Main 7663

F. D. B. Ingalls, '01, Mgr.

1919 Continued

who makes this territory in the interests of the Johns-Manville Co., doing sales engineering work in connection with the installation of roofs and hoods for paper mill machines. Outside of these two instances I have not run into any members of our class in some time, although I will be glad to give you any news I may pick up here and there in the future."

And now I have been saving our scenario until the last, for it presents a really satisfying conclusion. M. A. Michaels wrote it (with apologies to Briggs) "what a Nineteen man does five years later:

(First Picture). He gets up with the chickens to begin the daily task of earning a profit in his business so that he can give his wife the hundred a week that she needs.

(Second Picture). He slips away for a few moments to look over the new home that is being built for him and sticks out his chest with all the pride of a property owner.

(Third Picture). He calls on the trade in his flivver to get first-hand information of conditions and check up his salesmen.

(Fourth Picture). He spends the evening at home with his wife discussing suitable names for the heir due in March.

(Fifth Picture). He retires to dream of future prosperity, happiness, and contentment."

The author adds: "And so it goes, with no great excitement, day after day, each one with its task, each one well lived, and I'm sure that with slight variations all of us will fit in the picture I've drawn above of myself."

By the time you read this, the Annual Dinner will be all over, but I am looking forward to seeing many of you there, and perhaps from that will come the impetus for a 1919 Class Dinner! I live in hopes and in the meantime, good luck to you all!

Paul F. Swasey, Secretary,
Box 1486, Boston, Mass.

'20 No notes have been received by The Review Editors from the Secretary of this class for inclusion in the February issue. The Secretary received the usual notification that copy was due, accompanied by such news as had been compiled in The Review office. Members of the class having news or inquiries should address them to Kenneth F. Akers, Secretary, at 54 Dwight Street, Brookline, Mass.

'21 Bill Loesch, II, The Hanna Furnace Company, Dover, Ohio, is blast furnace operating and says: "Work very interesting; town not bad but have not seen a '21 man for so long it surely would give me a thrill to meet up with some of the old crowd." How would a good old party with Bunk, Dick and Reg go? Huh, Bill? Bill's address is 1441 Cohasset Avenue, Lakewood, Ohio.

John W. Barriger, XV, 26 Exchange Place, Jersey City, N. J., wrote a short time ago that he was "getting towards the end of the Pennsy's Transportation course which leads to the ancient and honorable position of Assistant Yardmaster, with hopes beyond. For the present I am engaged in all manner of queer but interesting duties, firing in through passenger service, riding around the harbor in lighterage service, working in the signal towers, et al., ad inf." I bet it's great to take a nice cool Sunday afternoon ride on your private yacht, Barge No. 23, loaded with cars of coal.

Well, well, if we don't hear a line from the little sunbeam, Russ Johnston, III, (you remember he was fourth outfielder at the senior picnic baseball game) from Santa Barbara, Chihuahua, Mexico, where he is with the American S. & R. Company, as he says, doing mine engineering work. Russ says: "O. A. Mills is here working in the mill. Skeets Brown and Cy Syner of Course III, Class of 1920, are at Veta Grande, about seventeen miles from here." Anybody bet as to Russ being on the wagon in Mexico?

C. K. Stiff, Course I, is connected with the Inspection Department of the Associated Factory Mutual Fire Insurance Co., 184 High Street, Boston. He is assistant engineer engaged in the design, maintenance, and inspection of elevated water tanks of all kinds. Tanks, tanks, and more tanks.

Roger Clapp, I, Post Office Box 33, Greenfield, Mass., writes: "Clyde L. Chatham, VI-A, Jersey City, N. J., is married and with the Public Service Electric Company.—Earl Thomas is married and living in Brooklyn, N. Y."

Joseph Moosebrugger, II, 17 Burbank Drive, Buffalo, N. Y., is a development engineer with the National Aniline & Chemical Company.

A splendid letter from Jackson W. Kendall, XV-2, c/o B. O. Kendall Company, 67 N. Raymond Avenue, Pasadena, Calif., (P. O. Box 599), says: "I have the same job as I had last year, only that I'm now also Office Manager. Since this is the beauty spot of the universe, I had better not start telling you about it, as it would keep me going all night. You know, California, the land of sunshine and roses — and all that sort of thing.

"Say, you sure caught me at a busy time. I've tried to fill this thing out about 'steen times, but no luck. Dad's away on a trip to South America to see if he can't subdivide the Brazil Jungles, the Andes and the South Seas in true Southern California fashion. I wish him luck, but in the meantime I'm busy selling Pasadena to the tourists and the rest of the world. The Pasadena Realty Board had a radio program over KHJ, the Times, at Los Angeles, that I had charge of and I'm wondering if any of you heard us boosting our fair city on the night of January 31 from 8:00 to 10:50 p.m. Pacific time. I was 'Mr. East Man' during the continuity part of the program. As per my Christmas card to you I have met quite a gang of M. I. T. chaps of late. They'll all get out here some day. Went on a two-day cruise to Catalina Isle, and expect to go again this week-end. Swam and aquaplaned to the amazement of the populace, but it wasn't as cold as they thought. Have been general manager at a couple of weddings, but don't seem to be able to manage one for myself. The Tech Club is pulling its first banquet in many years, next Friday, but a wedding party interferes, so can't make it."

Joe Gartland, X, and X-A, c/o National Carbon Company, Inc., Niagara Falls Works, Niagara Falls, N. Y., is in the Works Control Laboratory — and not unlike the work many others of us do "assists in the supervision of daily routine, bearing the brunt of blame for anything gone wrong anywhere in the processes and the solution of any problems the management sees fit to put before us." Just like a Filter Paper catches everything that's dirty.

Major X. H. Price, I, State, War and Navy Building, Washington, D. C., is Secretary of American Battle Monuments Commission, which was created by law and is charged with properly marking the American battlefields in Europe and taking proper steps to insure the beautification of the American cemeteries abroad.

Charles E. Thornton, VI, c/o Gibbs & Hill, Consulting Engineers Pennsylvania Station, New York City, has left Westinghouse and is with the above as Assistant to Job Engineer on electrification of the Virginia Railway. Charlie's present address, outside of working hours, is 307 West 90th Street, New York City, and he wants the New York gang to go and find his place — good food and all that noise.

Frank H. Caldwell, II, c/o Bucyrus Company (steam shovels and dredges), South Milwaukee, Wis., has a type of work before unheard of. It is called "Despair Sales." He says it is "selling repair packs, and material which everyone else despairs of ever getting rid of. In fact, I'm over half of the Specialty Department and the whole of the Quotation Department. As a side line I write notes to the Stock Control Department about not having enough material to make

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1921 Continued

prompt shipments. Elmer Davis is here also, assistant to the Superintendent of Outside Construction. I've never been able to find out what he does."

Herman S. Kiaer, XV, Bestum per Kristiania, Norway, writes: "About six weeks ago I returned home from France, having studied the French language, and—for the last six months—the manufacture of cellulose and paper. I intend to continue this same line in Norway and Sweden."

Eugene S. Weil, X, 511 South Second Street, St. Louis, Mo., is Secretary of G. S. Robins & Co., Chemical Commission Merchants and Jobbers. Gene asks the gang to call him up on the 'phone at Olive 6368 from 8:30 to 5:30 or at Forest 291 outside these hours. To quote from his letter:

"We sell everything from soup to nuts, e.g., Heavy Chemicals (such as NaOH, CaCl_2 , $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$); Essential Oils; Botanical Drugs (roots, herbs, leaves, etc.); Fruit Flavors; Electroplating Supplies and Materials; Dry Earth and Chemical Colors for Paint Grinders; and so on ad infinitum; in all about 2000 different items. The work is quite interesting, involving a knowledge of Chemistry, Sociology, and business conditions. We are called on continually for technical information. One man, engaged in the manufacture of porcelain enamel finds that his glass in place of being blue has turned yellow; a polish manufacturer finds that his abrasive won't stay in suspension; an extract man wants to know how to make Vanilla Extract without using alcohol; another extract manufacturer wants to know how much Oil of Juniper Berries to put into Gin. And so it goes. Of diversity of complaints and requests for information we have plenty. Something new all the time is what makes the selling end of Chemistry very attractive."

Donald B. Lavis, XV, is with the New England Telephone and Telegraph Company at 50 Oliver Street, Boston, engaged in budget studies, appraisals, unit costs, etc.

Juntaro Kawai, V, just sent in his check and address which is 1385 Hanada Sumiyoshi, near Kobe, Japan. Kawai was married on December 28, 1921, but no details were given.

Arnold C. Rood's, X, address is 1876 Knowles Street, East Cleveland, Ohio.

Edward P. Wilde, X, is back in North Adams, Mass., living at 19 Orchard Terrace. Can't you give us some news soon, Ed?

Herbert Von Thaden, II, representing the Detroit Aviation Society, barely missed finishing among the first three when, in the National Balloon Race which started at Kelly Field, San Antonio, Texas, last April 23, he landed near Dubuque, Iowa, after having covered a distance of 1003 miles in thirty-four hours, which was just eighteen miles less than that covered by the winner of third place.

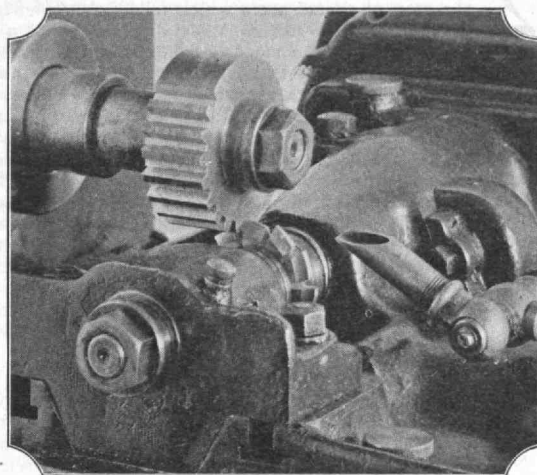
The National Aeronautic Association Review says: "His aeronautical activities have been wide and varied. In addition to army experience, he has carried on experimental flying and laboratory work for the National Advisory Committee at Langley Field, Va. He was technical assistant of the English Air Ministry, and studied aeronautics in France and Germany." I had, who was accompanied by S. A. U. Rasmussen as aide, piloted a balloon of 80,000 cubic feet capacity. He is in the engineering department of the Aircraft Development Corporation, General Motors Building, Detroit, Mich., and should be able to provide good material for a feature story in a future issue of The Review.

"S. Paul Johnston, II"—we would like to run that in seventy-two point red just to give some idea of our appreciation of the first absolutely unsolicited letter received from a '21-er in a long time. Sam came across with two pages of closely typewritten matter from which we excerpt the following: "Having had my conscience stung repeatedly in the past by requests for info both through the mail and the class notes in The Review, I am taking advantage of a fairly light afternoon to do something towards relieving the above-mentioned condition, and offer the following dope."

"After leaving the Institute and, after a short but very uneventful career with an engineering material sales agency in Pittsburgh, I fell in with the United States Aluminum Company and have been doing time with them ever since. For the first seven months I spent the time in the plant at New Kensington, Pa. In the middle of 1922 I was moved to the Pittsburgh office as general roustabout for the Vice-President in charge of production. In March, 1923, I was transferred to the Massena Works for a shot at the wire, rod, and cable game at which I am still engaged at the present writing. My particular interest lies in the so-called strong alloys of aluminum,—alloys of the duralumin type. I have charge of the production of these alloys into the many commercial forms in which they are now being used,—bar, rod, wire, etc. The uses are growing rapidly and there is much to be learned in connection with their manufacture."

"So much for that. I am glad to say also that I can now answer 'Present' when the class roll is called for married members! The event took place last December 28, at the Lafayette Presbyterian Church of Buffalo, N. Y., and the lady in the case was Miss Carol B. Rhodes, Wellesley, '23. We are now at home at 14 Church Street, Massena, N. Y., (mail address, Box 54, Massena, N. Y.), where we would be glad to see any wandering Techites who might happen into this neck of the woods."

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1921 Continued

"About the only ones of the class I have seen are Walter Jayme, whom I ran into in a crowded elevator in Pittsburgh some time ago; Barker, II, at a meeting of the Technology alumni in Pittsburgh about a year ago; and W. W. Frymoyer, whom I have seen twice, once in Washington where he has been with the Bureau of Standards on aeronautic instruments, and once in Pittsburgh when he was en route for McCook Field to do some test work."

R. A. St. Laurent, *Secretary*,
431 Oliver Street, Whiting, Ind.

Carole A. Clarke, *Assistant Secretary*,
Northern Electric Co., Ltd., 121 Shearer Street, Montreal, Que.

'22 The General Secretary points with a bursting pride to the crop of course notes which follow this brief introduction. Seldom has an Alberta farmer reaped a finer harvest. Into the clogged columns of this issue he himself can therefore insert but little. It is fitting, however, to call attention to the debut of Harris McIntyre as Laureate of Course XV, to the second welcome appearance of Roger Carver who holds the divining rod for the Miners and Geologists, and to the reappearance of Ford Blanchard, XIII, when after a lengthy submergence, comes up again for air. This discerning will also note that George Moore Holderness had been rotated through an angle alpha, to bring his "Conversations in Gramercy Park" into phase with "The Architectural Bulletin" which, beginning with this issue, becomes amalgamated with The Review. We saw George in his New York salon in January and had a pleasant chat.

Eric F. Hodgins, *General Secretary*,
Room 3-205, M. I. T., Cambridge, Mass.

Course II

The season of the New Year is full of new resolutions to do better for the coming twelvemonth. Were all such suggestions to be followed we would be up to our ears, and life would lose most of its spice. Nevertheless, an idea has been striking the Course Secretary periodically every two months that it would be a splendid plan for all Course II members to make the resolution to let their classmates know of their whereabouts and their occupation in life. Everyone is interested in what his friends are doing and none more so than the boys that spent class days with you. Take the resolution of showing your class spirit by dropping a line to the above address and letting the boys know what's what.



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Stoney Stone has travelled the continent, but is now nestled at 509 Merrill Avenue, Beloit, Wis. Miss Ruth Andrews, of Los Angeles, Calif., was the cause of it all. They were married on December 26 and are now living at the above address. Stoney is working for the General Refrigerating Company at Beloit.—Jim Truslow is with the Whitin Machine Co., living at 3 Pine Street, Whitinsville, Mass.—Irwin Cassidy gets his pay check from the Western Electric Co., Hawthorne Station, Chicago, Ill.—Bob Cummings is living at 7 North Wendell Avenue, Schenectady, N. Y. As everybody living in that town works for the General Electric we guess Bob is too.—Hots Harriss is all dressed up and living at 2410 Tuxedo Avenue, Detroit, Mich.—Phil Hastings has deserted the 'Stute and hangs his hat at 517 W. Jersey Street, Elizabeth, N. J.—Colby Bryden seems to have left the John Crane Packing outfit and is living at 17 Prospect Street, East Orange, N. J.—Frank Connors has been making a tour of the East with his bride. News is picked up as to his whereabouts from time to time, but he is moving so fast no definite information can be found about him.—Dyno Spaulding is still holding forth at the New York Tech Club, and working for the York Machinery Co.—Don Robbins, II, '21, is a salesman for the Bessemer Gas Engine Company, headquarters in Tulsa. He was married in September, while back in Boston on his vacation. He and his wife are now living at 1630 South Utica Street, Tulsa.

How's for a little real news, fellows? This section is for live items not an address exchange. The mailman brought in only one letter the last two months. What's a mile or two between friends? Write 'till it hurts.

John E. Sallaway, *Secretary*,
Box 346, Hartford, Conn.

Courses III and XII

On December 1, 1924, I attended a meeting of the A.I.M.E. at Tech. John Howe Hall, metallurgist with Taylor Wharton Iron-Steel Co., gave a very interesting talk and movie on "The History, Manufacture, and Application of Manganese Steel." At this meeting I was very much pleased to see Edmonds. We had a very enjoyable talk together at the dinner table, speaking of old times and wondering where all the wandering miners and geologists were. Professors Locke, Hayward, and Waterhouse were there in full force. Professor Locke is now Chairman of the Boston Section.

On November 20, I saw Thomas coming out of a class in accounting at B. U. Evening School. He tells me that he is working on the outside for his father, who, I believe, is a contractor.

From Professor Locke I have received the following notes concerning coursemates: Charles B. Schureman, III, was married to Miss Lucy De Troye, daughter of Mr. and Mrs. John De Troye of Sheboygan Falls, Wis., in October, 1924, at Sheboygan Falls, Wis. Miss Cynthia De Troye, sister of the bride, was bridesmaid and J. D. Peterson of Decatur, Ill., a brother Beta Theta Pi, acted as best man. The bride and groom spent their honeymoon in New Orleans and other Southern points. Schureman has been working for the Kohler Co., of Sheboygan since graduation.

William Ramsey McIver, III, was married to Mary Isabel Sanders in Salt Lake City, Utah, on October 18, 1924. McIver is now with the Utah-Apex Co., at Bingham Canyon, Utah. I am sure that everyone wishes the newly-weds much happiness.

The following is taken from a letter dated November 30, 1924, to Professor Locke, written by Dick Bard on board the S.S. Vestria, bound for Buenos Aires. Since graduation he has been working as an instrument man with the Carter Oil Co. in Oklahoma and western Kansas around Russell. Last summer he was doing reconnaissance work in the Rocky Mountain States. It surely must have been lots of fun traveling over that country with its wonderful scenery. About the last of October, Dick received an offer to go to Argentina as an assistant geologist with the Standard Oil Company and he accepted it. He expects to be down there for three years and will make his headquarters in Buenos Aires.

Dick sends the following news of coursemates: John Bower is with the Carter Oil Co., in Tulsa, Okla., and is getting along very well.—Jack Giles is also in Tulsa with the Tidal Oil Co.—Peter Lamont is working in the Foreign Sales Department of the Standard Oil Co. in New York. He expects to be sent to Europe soon.—I hope that Bard can find time in the near future to send along a letter about his work in Argentina which I can publish in these columns. I am sure everyone will be interested.

It is rumored that George Ramsay has a girl in Chicago and that he is neglecting his coursemates and friends. While in Chicago a week or two ago, I tried to reach him by phone but was unsuccessful. Explanations are in order, George.—Alden Erikson spent the holidays at his home in Waltham.—The Secretary is anxious to hear from more coursemates. If you have not already done so, please get your pen out and drop a line. If you cannot write anything about yourself, send us some news about some of the other fellows.

Roger D. Carver, *Secretary*,
65 Thetford Avenue, Dorchester, Mass.

1922 Continued

Course IV

Inasmuch as this is a new and wholly untried year, we should like to greet you with a wish that it will all come out right in the end, and that you will derive a certain amount of pleasurable profit from life during this time. If no one has happened to wish you a Happy New Year, this greeting is designed to make you feel much better at the prospect of another twelvemonth.

Since we last communicated with The Review a somewhat longer period than usual has elapsed, caused by our having missed an issue for the first time in over two years of secretarial chronicling. In the beginning everybody was fresh from school and enthusiastic over the idea of keeping in touch with his classmates. All was rosy for the Secretary until came radio and cross word puzzles and wives and even children into the lives of the old gang, and it slowly became evident that there was little time to be spent in reading of the doings of the other fellow. At this point we suggested that we saw nothing to be gained by continuing longer to Secretary, except undue deterioration of our Corona. Hearing no dissenting voice within a reasonable time, we decided it was unanimous, and with all proper ceremony laid away our portfolio among our E. C. & A. notes and other mementos of the past.

And then the unexpected happened. After we had missed the scheduled issue, and had forced the General Class Secretary to write two columns of his own stuff to fill up, we heard from Florence Stiles and Ed Merrill and Fergy, each stating that he, or she, recalled having seen our letters at one time or another. This was gratifying, indeed, but the consummate flattery was the news that Margie Pierce never reads the letters but always enjoys being told about them. Now, we ask you, kind readers, who could refuse to write class letters in the face of such loyalty as this? We were born and reared in the Great Southwest, where men are men and wildcats are household pets, but our heart softens in the tender pathos of such a story. And so here we are again, only a prodigal secretary asking to be received again into the good graces of his readers, all three of them.

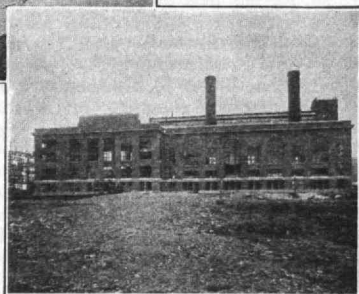
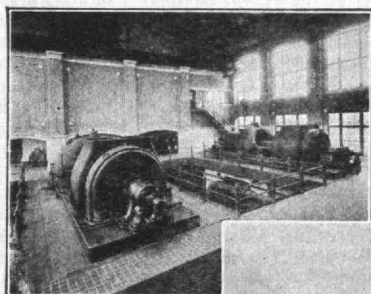
On getting down to brass tacks we discover that there is a great deal to say, but not much news. First of all, we must report the sad facts concerning the Technology Atelier. In our last letter we stated that it had been revived, rejuvenated, reorganized, and otherwise put on its feet; we even had the temerity to give definite names and addresses in connection with the movement, and to predict for it a successful future. Now, the Technology Atelier either has demised or has lapsed into its former state of coma. It seems to be something akin to sleeping sickness, alternating between periods of wakefulness and of slumber. We once knew a man down in Arkansas

who was afflicted in this way, and who said that life was just the same whether he was asleep or awake. But that has nothing to do with the Technology Atelier, which surely will snap out of it before long and realize the joy of living.

And again we have tales of world-travelling among our fellows. Everybody seems to have the fever for rushing over to Europe and getting an eyeful of old stuff (and often a throatful). In fact, so many are playing at this little game that we feel no small distinction at being the only one who has neither the experience of a European trip nor the money with which to go. Emily Stickney is back now and is working here in New York for the Lambs. No, no, not the Lambs Club, but a firm of church architects by that name. Emmy didn't bring back as much conversation about liqueurs, vin blancs, etc., as Margie did, but she still seems to have gotten her money's worth out of the trip. Peggy Kimball is still over, and at one time dropped us a hand-embroidered card from France, on which she intimated that there are many interesting things to do in Paris which have nothing to do with architecture. This was on an open card, so we can't be betraying her confidence in telling you. Johnnie Gunther also lingers longer abroad, but everything has blown over by this time, and Johnnie probably will be weighing anchor for America before long. And here is some real news for you! Herr Rudolph Hans Blatter, who has been with Carrère and Hastings for some time, has shoved off for Europe, but not alone. And thereby hangs the tale. Rudy recently convinced Miss Gladys Jane Orcutt, of Mechanicsville, N. Y., that he could support her in her accustomed style, and they have crossed the billowy deep for a honeymoon on the other side. He probably is taking his Frau to the fatherland to show her some real pretzels and lager, in which case we hope they both survive the ordeal, and live long and happily together.

This business of wishing well to newly-weds is becoming a habit with us, but it still is sincere, which is something. Since graduation we have given this sort of secretarial blessing to Hayward, Wiggs, Swan, Ellsworth, Vignoles, Mall, Hemenway, Ferguson, Brookfield, and Blatter, which shows, if nothing else, that our class as a whole has not lost sight of the bigger and finer things in life. Well, so much for European travel and matrimony, on neither of which have we, personally, had the courage or the wherewithal to embark. Pending future developments we can only look forward with curious eagerness, and hope that the thrill of realization will at least approximate the joy of anticipation.

Recently we went down to Baltimore and spent a week-end with little Howard Frazier Baldwin, and incidentally saw a corking good football game. Also at the fracas were the President of the United States, who kept up a rapid-fire conversation with those around him,



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AT BOSTON

1922 Continued

and 79,998 others representing all walks of life between Cal and ourself. And it surely was great to see Baldy again! He still is that same bright-eyed choir boy as of yore, and his wit is even more sparkling than in the good old days on Boylston Street. By special request Baldy favored us again with those soul-searching ballads, Brave Amherst and Beale Street Blues, and seems to have lost nothing of his old skill and cunning in reaching that high note in the former. And then we joined in rendering Them Days Have Gone Forever, or sentiments to that effect, but we both wished they had not.

And at Christmas we had the pleasure of seeing still another of our old classmates in his native bailiwick. We went up to Quebec, where Ross Wiggs was visiting his old home for the holidays, and had a whale of a time. Ross tried his hardest to make us into an Eskimo like himself, but not even the pleasure of the winter sports could make us feel indigenous to that soil. On the 28th we both celebrated birthdays, having been on this earth just exactly the same length of time, to a day. Among other outstanding events of the trip was "mushing" with a dog team, whose driver is a brother of the redoubtable Fred Beauvais, dean of Indian guides.

A recent letter from Ed Merrill reveals the fact that he is working for Toltz, King and Day, who claim to be both architects and engineers, in St. Paul. The former high-jumping fiddler claims to be getting the most diversified experience of us all, and to be conducting his professional affairs in such a way as not to ruffle the perfect harmony and accord existing between the two elements in his office. Ed tells that he has run the gamut from making renderings to superintending the installation of a sewer system. We can't hope to tie that one, Ed, but we can't turn over the prize until the remoter provinces have had a chance to send in their challenges.

The most startling advices from within the city are to the effect that Al Pierce has jumped his contract with Mott Schmidt and now toils for Cross and Cross, that Roswell Pfohl has moved his trunk from 60 Grove Street, being at the club now pending the discovery of a suitable apartment, and that Ross Wiggs has just accomplished a coup d'etat in the way of publicity. Ross recently was adjudged one of the winners in the Country Life Small House Contest, and in the January number of that publication may be seen the Canadian's austere physiognomy, with a full account of who, what, and why he is. He hated like the devil to have his picture published, but they insisted, and so there it is. Get your copy now, gentlemen, for positively nothing will be sold after the train leaves.

Technology Branch

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AT YOUR SERVICE

Technology Branch

And in the meantime we shall act as agent for the class and congratulate Ross right roundly.

And, before closing, we must tell you of the latest happiness which has befallen the household of Mr. and Mrs. Chubby Heitschmidt. For unto them has been given a daughter, y-clept Margaret Louise, and the young lady should blossom beautifully under the influence of such fine parents and a California climate. We should like to congratulate all three of them personally, but the distance to the far slopes of the Sierras is prohibitive, and so we pen it in this letter. Chubby and his wife are particularly fortunate in that their offspring, being a girl, is much less likely to become a draughtsman than a young Chub would be.

And thus we come to the end of our current notes. If you would gain lasting happiness, and avoid dire misfortune and disaster, copy this letter a hundred times and send it on to a thousand of your worst enemies. And may your clients all be blind.

George S. Holderness, *Secretary*,
17 Gramercy Park, New York, N. Y.

Course VI

Course VI notes due again and little to write in a quantitative way! In perusal of the *Transcript* for the Congressional record of the day's work so that Course VI space might at least appear to consist of the requisite number of lines, the following was noted: "Mr. and Mrs. Charles A. Robbins of Bangor, Maine, have announced the engagement of their daughter, Miss Elizabeth Perssons Robbins, to Fullerton Deering Webster of Everett. Miss Robbins is studying piano and organ at the New England Conservatory of Music. Mr. Webster, who is a graduate of the Massachusetts Institute of Technology of '22, is a radio engineer with Mr. John Hays Hammond, Jr." Not only do we welcome this opportunity to congratulate our fellow classmate, but welcome also a clue to his whereabouts. Fully Webster should be doubly congratulated for his part in this broadcast inasmuch as radio engineers are not supposed to have time for other things than radio matters.

Frank Gage was at the Annual Dinner of the Association in the double rôle of consumer and producer. His numbers on the program were, as usual, very entertaining. He is back at the Institute as Secretary of the Electrical Research Division.

Charles L. Weis, Jr., is engaged in development work on repeater stations for long distance communication in the Research Laboratories of the American Telephone and Telegraph Company and the Western Electric Company. He is at present in St. Louis aiding in experimental work on the transcontinental lines.

Fearing Pratt, *Secretary*,
120 Main Street, Hingham, Mass.

Course XIII

Notes on the doings of the Naval Architects of 1922 are, of necessity, rather sketchy. Kenneth Bernard, of whom the Secretary catches fleeting glimpses from time to time, is a rather valuable informant, and other information filters in in various ways. Bernard is still in the New York office of Worthington, from which company, however, he still seems to be on the verge of departing. Allan Bowers carries on with the same outfit, being attached to the Buffalo sales office, from which he makes weekly sorties with the idea of disposing of a few pumps. It is understood that Howe got married many, many months ago, thereby adding to the ever growing number, which, for our part of the class, includes Eddie Morse, Joe Keenan, T. S. Greenwood and possibly others. Joe Keenan continues at Schenectady with the Generous Electric Company. There seems to be a vague understanding that Greenwood and Charles Chase are with Minot, Olson & Thurber. Don Marsh showed up in New York during the summer, stating that he was with the Underwriters' Laboratories. At that time, Ward Shearer, of the Bethlehem Steel Corporation, was also in evidence. Wendell P. Sammet is said to have been at Bethlehem, Pa., with that company as well. Newhall has not moved from Groton, Conn., for some time. Winslow is in Cuban waters on a Diesel boat. He's with some company that manufactures that type of engine. The name can be pronounced but has never been seen in print, so can't be inserted here.

Within the next month (January) the Secretary will get out a circular letter to the various members of the course, and will appreciate it very much if everyone would take time to furnish a little up-to-date information.

C. Ford Blanchard, *Secretary*,
Room 1400, 35 Nassau Street, New York, N. Y.

Course XV

Under the plea of short notice, it will be necessary to write these notes ex tempore. Before hoisting the anchor and getting underway it might be well to mention that Eric Hodgins has kindly granted us a quota of space in every issue of *The Review* until we run out of ammunition. From that time on, the usual bimonthly appearances will prevail.

1922 Continued

Before the ex tempore begins, it might be well to lean upon the Alumni Office and dispose of the clippings from 'round about Boston. The first clipping to fall out of the envelope was from the *Transcript* and bore the caption, "A Harvard-Technology Engagement." Rather abruptly a gust of air carried this clipping away and one from the *Post* popped into view. This article goes on in this manner: "The coming of warm weather has stirred Cupid to unwonted activity, and a wedding of interest to society, set for August 16, and for which invitations have been issued, has been changed as to date and place and will occur in New York tomorrow, July 3. The contracting parties are Miss Phyllis Currier Kraft, and Robert McKenzie Dunning of New York." Mr. Dunning, by the way, is Harvard, '20.

The Springfield *Union* on October 16 contained a paragraph headed, "Go To Canada on Wedding Trip." It goes on to say: "The wedding of Miss Sally A. Hood and Herbert Cogswell Button of Cazenova, N. Y., took place yesterday afternoon at the home of the bride."—Saturday evening at the Alumni Dinner we noticed Robbie looked a good deal happier than usual. When the envelope of clippings was opened this afternoon whatever mystery there was quickly vanished. The *Herald* for October 19 contained a very fine picture of Mrs. J. Frederick Robinson, née Elsie Moir, a mid-October bride. Robbie is with the Simplex Electric Heating Company of Cambridge.—The next time we call on Miss Barnard we're going to take a court reporter along to record her every word. Then writing these notes will be as simple and easy as flunking a 223 exam.

Now let's see, to begin the ex tempore it might do to crank up the magic carpet and journey to Chicago. Taking this fanciful expression more literally brings to mind a statement I heard the other day that the best boosters California ever had come from New England. Rather than waste any more of Eric's space we'll drop the matter by saying that some of us believe that one goes to Chicago to board the magic carpet, (industrially speaking).

Art Meling and Sweed Johnson are native sons of the "City of Go." Art is in the construction game, with the Sumner Sollitt Company. When you read about the Western Electric's big wire mill in Hawthorne, it might do to remember that A. E. M. superintended the last quarter of the job and the best half of the profits. His life-long friend, Sweed Nelson, who took a post graduate course at the 'Stute 1921-22, is in the same line. He is with Thompson-Starrett there. They recently finished the great Strauss Building on Michigan Boulevard at Jackson and are now well underway on the new Palmer house, which, by the way, is to have something like 3500 rooms. Art and Sweed live with their respective families in the North Shore Hotel, Evanston, Ill. Old Jay Sterling Kelley of Bordeaux, Beaver City, and Brighton is still with the General Automotive Corporation. When you see a monogram cap securing a motorometer to a motor car radiator, think of Jay. He started a Sales Engineering Department in this new organization. He later became Assistant Sales Manager and is now District Manager with the following limits of his "back yard" territory: "From the Mississippi to the Rockies and from Hot Tamales to Canadian Club." Following the Japanese disaster the G. A. C. had an earthquake all its own, shaking out the President and inventor, and several others. Jay has been retained somewhat in the manner of a drowning sailor retaining a life preserver. His address is Kansas City Athletic Club, Kansas City, Mo. Last winter, J. S. K. was very active in the Tech Club of Chicago, serving as Treasurer and "Chief General Shove" behind most of the activities there.

Wes Manville and Mrs. Wes (née Louise Henderson of Brookline) live in Marshalltown, Iowa. C. Wesley worked for a time in the concern of his illustrious namesake Johns-Manville but the Standard Oil of Indiana beckoned in a way that meant business and away from Boston they did go, even after they were so comfortably settled in their own home in the Newtons. Wes, along with some others from '22, was given the secrets of oil manufacture at the world's largest refinery at Whiting, Ind., and trained to engineer the selling of Standard Oil Products. This, by the way, was the first group to receive such a training. Their godfather in the concern is Mr. R. E. Wilson, formerly a Professor in Course X.

Randy Haigh came over to the Windy City a while ago to visit. He is with Louis Fabian Bachrach in the Detroit Office. We heard the other day that Randy and some kindred spirits had coöperatively rented a mansion and were living in ease, affluence, and luxury.

C. C. Bray lived with Kelley for a time in Chicago, in the famous "Kelley's Brickyard" that possibly a few of our number have heard about. C. C. is with the Ryerson Steel Company, jobbers of all manner of things of steel. Bray is Secretary of the Tech Club of Chicago this year. We wish him well in his office, knowing from experience the rare sport to be derived therefrom.

Last New Year's, a year ago, we were blowing reveille for the New Year at a Navy Party with our good friend, Jack Haynes. Jack is with the Western Electric at Hawthorne.

Big Bill Pinkham is partly the cause of Brownie being so busy. The Bahnsen Company started to play a joke on Pink. They started him out selling textile mill humidifiers in the territory between New York and Chicago. Maybe the Sales Manager chuckled as he thought how much it would be like selling radiators and chapel

INDUSTRIAL BUILDINGS SHOULD BE WELL LIGHTED.

From the employer's viewpoint, the big difference between men who work out of doors and those who perform tasks inside the building, is the factor of light. Daylight furnishes sufficient illumination outside during the daytime working hours for men to pursue their tasks efficiently and safely. But the proposition of getting enough daylight into the interior of industrial buildings, requires some thought.

It is not a difficult problem by any means, and any employer can take advantage of daylight and utilize it for lighting his building during the daytime, if he desires. It is an excellent light, especially suitable for the eyes, reducing eye strain and eye weariness to a minimum, and has the great economic advantage of costing nothing.

To utilize daylight to the utmost, we must first provide means for allowing daylight rays to enter the interior of buildings in sufficient quantity—namely, proper and adequate windows and skylights. Many excellent instances of buildings designed with a due regard to the importance of daylight lighting can now be seen in many of our industrial cities. Such buildings present the appearance of being practically all windows—"window walled," as they are termed—and this type of daylight construction is coming rapidly into favor, because it constitutes a more healthy building for large numbers of employes, both from the lighting and ventilation standpoints.

Among those who have constructed this type of modern industrial building may be mentioned: The Shredded Wheat Co., Gillette Safety Razor Co., Lyon & Healy Piano Co., H. J. Heinz Co., Corona Typewriter Co., Skimmers Macaroni Co., Grape Juice Co., Dodge Bros., Nelson Valve Co., Piston Ring Co., Remington Arms Co., and a great many others.

The Larkin Co., Philadelphia, has erected a building almost entirely glass, 85% being windows, and the Loomis Breaker, operated by the D. L. & W. R. R. Co., Nanticoke, Pa., is literally a glass house, being 93.5% of glass. The new buildings of the Winchester Repeating Arms Co. have an average glass area of 58%.

An investigation covering 18 buildings constructed by the Aberthaw Const. Co., Boston, shows that the average window area is 57.5%.

These figures indicate how important the subject of lighting is now considered by employers of industrial labor, and how well the idea has been carried out by the architects and engineers, in order that all parts of a building may receive sufficient daylight. But, in addition to providing ample window space, there is another factor which is equally important, and that is, equipping the windows with the proper glass.

The bright direct rays of the sun should not be permitted to strike the eye, and we must provide a means for reducing the glare to rays which will not be too bright. This is accomplished by glass especially manufactured for industrial windows, known as Factrolite. This glass possesses the property of breaking up the intense rays of the sun and diffusing the light into the interior of the building in proper portions, solving the problem of sun glare.

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1922 Continued

seats to seniors. The joke did not turn out that way as Bill now has his "mystifiers" in every sort of an establishment from macaroni mills to cigar factories and from fine printing establishments to Indiana glove shops. Bill spends a good deal of time at the Cooper Carlton in Chicago and then again one may find him at the home office of the Bahnson Company on Fifth Avenue, New York City.

Ed Ash is from Chicago, but is sticking pretty close to Boston. His father and mother are also very loyal to the Institute. They did a good deal to make the Radio Dinner at the Cooper last February a success. Ed is happily married and lives out in Belmont. Mrs. Edward Allen was Miss Hixie Boykin of Houston, Texas, and the Boston Conservatory. When interviewed by our reporter, Mr. Ash stated that he had no children but had three dogs. We happen to know that the three canines are prize winning wire haired fox terriers. Ed is Advertising Manager for the Ginter Company. This company operates several restaurants and three or four hundred grocery stores in and about Boston.

Stocky Harold Stockbridge is in the Management Division of Stone & Webster. Stocky is the assistant to, and usual proxy for the gentleman who governs the Eastern properties under their jurisdiction. Had luncheon with him today. We talked over the possibility of establishing a central luncheon place where kindred spirits could congregate and dine in the radiance of each other's presence. Such a scheme seems to hold forth great possibilities and to be worthy of much serious thought.

In the mad struggle for our first million, it seems too much like hard work during the daytime to sit down and write a few letters now and then. No one will admit but that Schell's motto, "Keep your friendships in repair," is tried and true. We like to think of our friends, — what they are doing, what they are aiming at, and how they are getting along. However, it seems to be almighty tough thinking when one cannot even guess where one's friend is, what he is doing, what he has ambitions for, and so on. Without letters the circle narrows down, opportunities for coöperative action dwindle away, and the enormous benefits from group success cannot accrue.

As a substitute for letters to everyone, these '22 XV notes might well serve a good purpose. Think of all the boys you want to write to and pen a letter to the Secretary telling about yourself and the other '22 XV men you know about.

Harris B. McIntyre, Secretary,
Engineers' Club, Boston, Mass.

MEMORANDUM

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'23 The news this month is for the greater part old stuff and is made up of notes that The Review editors omitted from the December issue and some that arrived late for the January issue. In other words, not a single line of current news was received for the February Review. This is pretty poor business and unless you embryo engineers take a few minutes to let us know what you are doing or what has happened to you, the March number will be "sans" '23. Let's get under way now. Drop a line to your Course Secretary or the Gensec before another twenty-four hours has passed. One thing more! Please let the Secretary know whether or not you expect to be at the All-Technology Reunion in June. That's all. It's your turn now, fellows; let's hear from you.

Robert E. Hendrie, General Secretary,
12 Newton Street, Cambridge, Mass.
H. L. Bond, Assistant Secretary,
Room 1-181, M. I. T., Cambridge, Mass.

Course II

The Gensec received a pleasant surprise just after Christmas when Elmer Sanborn dropped in on him from New York and was able to stay a couple of days. Elmer has been transferred from the White Motor's factory in Cleveland to the Service Sales Department in New York City. While in Cambridge, Elmer had a chance to give the new board track the once over and after tearing off two miles on it pronounced it the best one he ever ran on.

Ray Willis, who joined the benedicts last spring when he married Miss Gladys Peterson of Dover, N. H., became the proud father of a son about the first of December. Congratulations, Ray and Mrs. Willis. Are you going to send him to Tech? Ray is still with the New England Telephone and Telegraph Co. Just now he is laboring in the Congress Street office on a plant inventory that the company is taking to prove that it needs the much talked of 'phone rate increase.—Speaking of weddings, Herb Flather was married to Miss Miriam Noble Warren of Nashua, N. H., a student of the New England Conservatory of Music, on the first of December.—Herrick Tappen's engagement to Miss Eugenie Safford Brown of Newton was announced in November.

Harold B. Gray, Secretary,
Vitreous Steel Products Company, Nappanee, Ind.

Course III

The Miners have been unusually silent since last November. Perhaps they have all struck it rich and are busy staking out their claims, or perhaps their time is so taken up in the search for something to stake out that they have not been able to spare a few minutes for their classmates. Whatever the reason for the lack of any signs of life, fellows, let's shake out of it. Write to your Secretary and tell him what has happened.

However, we have one choice bit of news that should have appeared in the December Review. Eddie Heap is married. Now that you have swallowed that, here's the rest of the dope. Last Labor Day, Eddie and Miss Lillie E. Hatch of Atlanta stood before the minister and were made one. It is rumored, (I can't vouch for its authenticity) that Eddie jumped the gun and for once got away with it. Eddie and Mrs. Heap are making their home in Atlantic. Eddie is still with the Norfolk Varnish Company.

Benjamin P. Lane, Secretary,
725 Magnolia Avenue, Los Angeles, Calif.

Course X

Francis Plummer Squibb was married in November to Miss Newcombe of Providence, R. I. Sherwood Berger, John Allen, and Ray Holden were ushers at the wedding. Squibby and Mrs. Squibb are living in Cincinnati.

R. Kibbe Turner, Secretary,
61 Brookline Street, Chestnut Hill, Mass.

Course XIV

The frequency with which our Gensec issues requests for notes is not at all consistent with the reception of letters from our constituents. I dare say that the cross-word puzzle craze is mightier than the product of mass and acceleration, i.e. the force, acting colinear to pencil marks which might ultimately find their way to our record files. Some of our old profs would say that the derivative of the function of letter writing had successively lower values until in the neighborhood of zero it became entirely discontinuous! At any rate, a few letters now and then would be decidedly helpful in improving the quality and in lessening the effort in preparing our notes. Don't be discouraged by belated answers for the volume of correspondence almost forbids replies and besides these notes are in reality answers to your letters.

From *The Tech* for October 27 we learn that Ned Frank in collaboration with Professor Heymans has succeeded in measuring time

1923 Continued

of the order of one billionth of a second through the use of the Lichtenberg figures produced by the reflection of the electric waves from an electrode. An effort is now being made to reach one hundredth of this value. From this, we surmise that Ned is well on his way towards the Ph.D.

From the very next issue of *The Tech* we also note that Charlie Mongan has been recommended by the Faculty for the degree of Master of Science in Electrochemical Engineering. We all congratulate him and wonder what he has up his sleeve next.

Charlie Roche, '23, confronted your Course Secretary in the Chemistry Department of the New York Public Library on Armistice Day. He said he was an engineer with the Merck Chemical Co. at Rahway, N. J. He was the same old Charlie and his original greeting of hitting your Secretary on the head with a book almost upset the dignified tranquillity of the place and we had to make a hasty exit to avoid being put out.

On Charlie's information, it was learned that Ed Roll was with the Westinghouse Lamp Co., in Bayonne, N. J. A few days later Ed got the Scribe by 'phone at Stuyvesant 5600, Extension 467, and after much bewilderment we made a dinner engagement at the Tech Club. Later he was called away on a survey, so that the dinner has been postponed. Ed said that Don Gardner was working at the same place. In our next appearance we hope to have some real information concerning them.—If anybody knows what has become of Bat Hauisen and Chan Clapp, information concerning our missing sons would be greatly appreciated. They both steadfastly refuse to answer summons by mail or else they are hidden far from the reach of Uncle Sam's postal service.—Ed Smith, according to information on a much defaced card returned from the Post Office Department, no longer lives at 470 East 161st Street, New York City, and has moved without giving his destination. We would like to know something of why Ed had to make such a sudden and secretive get-away.

Now since there's nothing else to write and to silence many inquiries, your Course Secretary is employed by the New York Edison Co. in the role of Assistant to the Consulting Engineer. He has enjoyed this capacity for a year and the work is very interesting, particularly as it is under the immediate direction and supervision of George A. Orrok, '89, Consulting Engineer. The diversity of the work is delightful, ranging over 420,000 K.W. hydroelectric development, 220,000 volt transmission line, 1,500,000 K.V.A. circuit-breakers, 60,000 K.W. turbines, new steam tables, large power

stations, steel annealing ovens, and by-product coke ovens, etc.—And now as the dope is exhausted, we will quit until the next call.

Frank M. Gentry, *Secretary*,
Room 1522, 130 East 15th Street, New York, N. Y.

Course XV

One Course XV wedding has come to light recently, that of Charlie Brantingham. He was married during the middle of December to Miss Beatrice Farmer of Brookline. Don Carpenter came on from Wilkes-Barre, Pa., to play the rôle of best man.

Edmund Miller, *Secretary*,
574 Lake Avenue, Rochester, N. Y.

'24 Your Secretary, sometimes called the Gensec, takes pleasure in announcing a service which is available to the members of the class. Through the generosity of the Alumni Association he has been presented with a card catalog of all persons who were at any time connected in any way with 1924. Consequently, he is prepared to answer such questions as: "Was so-and-so a member of the class? Did he graduate and if so, did he graduate with us? What is such-and-such's latest address? What 1924 men are located in Reno? Have I paid my Alumni Association dues and class dues?" Briefly, any question you have relative to the class can be sent to him and if the information is not on the cards he will be glad to try to obtain it for you.

The information given out concerning you will be the information which you send in directly to the Secretary of the class or of your course or to the Alumni Association or indirectly by another member of the class. It is therefore to your advantage to keep your Course Secretary informed of your whereabouts. Which makes a very good opening to put in a word about sending in class news. Why don't some of you clams open up and send in some news to your Course Secretary or if you don't know his address, to the General Secretary? All of you must at least have an address and that is enough to start a letter with.

This is pretty cold weather to be talking about June and reunions, but perhaps by the time this is published it won't be so cold. Of course you have all seen the many and various announcements of the reunion, including Dennie's cross-word puzzle in the last issue with the answer in this issue. Nineteen twenty-four should be there strong since we have the largest enrollment in the Alumni

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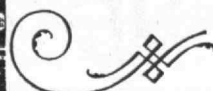
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1924 Continued

Association, and the first year out always seems to be the longest. It is still a long time to our first Five-year Reunion and this will help to bridge the gap.

The Class of 1924 is still at the head of the membership list of the Alumni Association, but if we expect to hold our position we must complete our quota. We are very closely pursued by several classes which would push us into second place if one of them should complete their quota and we should not. If some fellow member of yours happens to mention the fact that he does not receive *The Review*, find out if he is a member of the association and, if not, get him to send in his three dollars. At this time we still need about twenty-five more members.

The *Boston Globe* for November 29 has this concerning Bill Rowe, XV: "In spite of injuries he received at 7:40 p.m., when the car which he was driving was in collision with a street car at Nonantum Square, Dr. Thomas Chalmers, Principal of the Allen Military School, refused to stay in the Newton Hospital and went home in time to perform the ceremony by which his daughter, Miss Mary Eleanore Chalmers, became the bride of William Dennison Rowe, son of Mrs. Sally Rowe of Beach Bluff. His machine was badly damaged in the crash.

"Dr. Chalmers was on his way home when the accident occurred. First, he was taken to West Newton in a taxi and then in the police ambulance to the Newton Hospital, where he was treated for multiple lacerations of the face and head. He refused to stay more than a few moments for treatment, however, and taxied to his home on Waltham Street, West Newton, only a few minutes after 8:00 p.m., the time for which the wedding was scheduled. The ceremony was performed in the living-room of the school. Dr. Chalmers also gave the bride in marriage. In the performance of the ceremony he was assisted by Rev. J. Edgar Park, minister of the Second Congre-

gational Church, West Newton. A reception followed the ceremony. After New Year's, Mr. and Mrs. Rowe will be at home at 28 Davis Avenue, West Newton."

The *Boston Transcript* for December 2 has this concerning George Raymond Lehrer, IX-A: "A bridge-tea at the Norton Tea House was made the occasion for the announcement by Dr. and Mrs. Adelbert Fernald of Elmhurst Road, Newton, of the engagement of their daughter, Miss Dorothy Ruth Fernald, to George Raymond Lehrer, son of Mrs. George J. Lehrer and the late Mr. Lehrer, of Cincinnati and Cambridge. Miss Fernald is a student at Wheaton College in Norton, where she is a member of the Class of 1927. Her fiancé, Mr. Lehrer, is a graduate of Massachusetts Institute of Technology, Class of 1924, and is now a member of the Harvard Graduate School of Business Administration, Class of 1926. No time has been set for the wedding."

Jack Parsons, VI, is assisting the Electrical Engineering Department as research assistant. He travels out to various factories in New England and New York, and conducts tests.—Bill Robinson in a letter states that Tom Bundy is already designing skyscrapers of utopian design and wants to know of anyone who needs a hencoop. Chick Kane, erstwhile naval pilot, he says, is now working for Edison.

Archie Carothers, nicknamed Arch-angel because he was so often with the Deacon, now a member of the Class of 1925, suddenly leaped into further prominence a short while ago by having a wardrobe consisting of five suits, three overcoats, two top-coats, scarfs, haberdashery and all valued at \$800 to quote the red headlines of *Hearst's American* and then not having the wardrobe. What we are trying to say is that it was stolen out of the Dorms. A man that can afford six suits (he must have been wearing one) should have some of them taken away from him, but we grieve that they were all taken.

Your Secretary now having completed his comments upon what he thinks to be subjects of interest to the class, pledging again his desire to be of service to the class and each of its members, and lacking further inspiration with which to prolong the agony of this preface must necessarily stop and allow you to search for the news of your old partners which is hidden away in the notes of the Course Secretaries.

Harold G. Donovan, *General Secretary*,
Box 385, Niagara, Wis.

Course II

From Rolf S. Julsrud, 28 Weldon Street, Suite 41, Jersey City, N. J. "Since graduating last June and with the exception of three wonderful weeks in the White Mountains, I have been in the vicinity of New York City. I have been with the Brooklyn-Manhattan Transit Co. in their Williamsburg Power Station for some time as Junior Test Engineer on Steam Equipment. The work has proven interesting and fruitful in experience. The greater part of my work has been devoted to boiler testing that is to say, coal tests, draft loss tests, change in baffling tests, etc. However, I am contemplating a change possibly after New Year's into power plant design.

"I am rooming with Henry Zeiger, a Course VI man of '24. We are yet rather provincial in the big city, but four years in the Back Bay has been of some use other than the assimilation of Heat Engineering. We are at present attempting to amuse two sweet young things from Bayonne, who apparently have lost their home or possibly never had one."

J. R. Hancock, 131 West Chestnut Street, Jeffersonville, Ind., writes: "I am an assistant on the Engineering Corps for the Pennsylvania R.R. All that title doesn't mean much, as I am only a poor civil engineer.

Fred S. Hungerford, *Secretary*,
Valley View Club, Akron, Ohio.
E. J. Hanley, *Assistant Secretary*,
29 Park Avenue, Whitman, Mass.

Course X

Bert Grahame was married on July 19 and as far as information has reached the Secretary, he is the first to take the plunge. We are curious to know by how much Bert led the race. We have it from a good source that he did it on purpose. We of Course X 1924 ought to do something about it. A memorial of some kind would be the proper thing. A great many others of the class have spoken of



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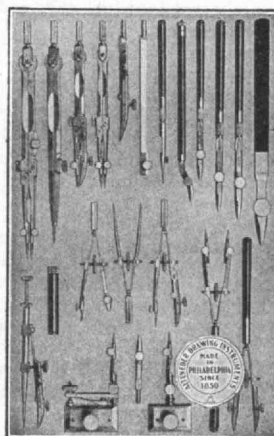
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doing a like act. But just how it was to be done has always been a mystery. All they needed was a leader. Out from Texas comes Bert. All joking aside, Bert, we've got to hand it to you; it is the best engineering feat anyone in the course has seen. Congratulations. Bert is working in an oil refinery, Texaco, down in Texas.

In all this lies a lesson to the rest of the gang. Wedding announcements should be sent to the Secretary and all subsequent announcements should also be sent to him.

Warren Hill is in Maine working with the Rockland & Rockport Lime Co. He writes: "I was doing efficiency and development work in the gas fired kiln plant up to two weeks ago. At present, I am in the midst of several research problems. I expect to be engaged in laboratory rather than industrial work all winter." He adds that he likes the town as well as the work. If we only received some more letters like this one of Hill's and one we got about the same time from Charley Herrstrom, we might be able to stand working for a living.

When six Course X men get together and concentrate on one line of work there is dirty work ahead and nothing is safe. It looks pretty bad for our government down in Washington and we expect hourly to hear of a coup d'etat in which these six men will get control of the old U. S. A. The only trouble with Sinclair was the fact that he never went to Tech or held a Chem Society office. But these boys are not going to make any Tea Pot Dome mistakes. This is the situation. In the Patent Office there are six Course X 1924 men at work; Daly, Ford, Herrstrom, O'Brien, Wharton, and Stern. Pick out the country you like best after the U. S. A. and go there is our advice.

Charley Herrstrom's letter is a revelation. He writes: "I got a little discouraged with the life of slide rule pushing and determined to get as far away from engineering as conveniently possible; and for that reason, I feel quite satisfied to be a Junior Examiner of Patents in the Patent Office. My work (which consists in reading over the applications for patents in safety valves, steam traps, boiler feeders, etc., and the determining whether or not the disclosure is patentable) is varied and exceedingly interesting." Charley is also enrolled in the Law School of the George Washington University and is studying law.

Ted Simonton is with a patent law firm in Washington after spending a year in the Patent Office. Joe Shea is in Maryland with a cellulose company, doing control work. Gourley is in Detroit, working with a Copper and Brass Rolling Mill. Pat Schreiber is with the Goodyear Rubber and is living in Akron, Ohio.—This is every bit of news we have this month. Out of some seventy-five we have heard from only four. We want to hear from as many of you as are able to write.

W. B. Coleman, *Secretary*,
120 Broad Street, Matawan, N. J.

Course XIII

(A Correction)

Due to an oversight in proof-reading the Course XIII notes in the January Review, it was reported that Ingram Lee, XIII, '24, had lost a hand in a cotton machine. The Review is happy to say that this was an error on its part and that the Secretary's copy read that he *nearly* lost his hand in that accident. He has recovered its full use after several months of convalescence and is now making

good in a cotton mill near his home in Texas. The Review hopes that Mr. Lee will take good care of both his hands in the future.

Course XIV

Three members of the course have responded in the last month to a call for news, all three sending good, long, and interesting letters. These three are Tom Mattson, Norris Johnston, and Howell Brown. The latter's letter reduces the number of members not heard from or about to two, Al Cummings and Harry Ferguson. Has anyone here seen them yet? I wish they would open up. In fact, I wish the other eleven members who didn't write this month would open up.

Norris in most ways seems to be my Institute correspondent. Like the first letter he wrote he has included in this one all the latest news concerning everyone around Boston. Here's what he says: "Received your letter and shall have to keep up the precedent I so foolishly started; so here goes.—Morgan is at 424 Thirteenth Street, Niagara Falls. He is very nicely located with the Carborundum Co., and I imagine enjoying life more than he did at Perth Amboy. Mattson is still here with Millard, I think. Swift is very enthusiastic about the manufacture of gas-coke pots for various electro-chemical processes; so happy in fact that he is seen almost anytime smoking in the locker room quite oblivious of the humdrum existence of the E. C. Lab. Piroomoff is enjoying the life of the Chem. Eng. Lab, and is doing very well, having particular fun checking up on Clark Shove's 'numerical errors.' He has to solve all the problems in the courses for himself rather than just checking up on the Prof's ans. I think they are making him do that so as to have a good set of solutions. Dick Starke is around, but I haven't seen him for some time. Dick lives at 493 Commonwealth Avenue, and Piroomoff lives at 2 Clinton Street, Cambridge. He is listed as a Course X student also. I will send you a directory if you like and you will have something on all of us, at least in the way of addresses. It is tough to go into Walker and see perhaps ten people you know on earth and perhaps none. Many's the day I have eaten there all alone, and thought of the other days when there was a regular XIV table.

"The work goes on apace. Dr. Heymans has asked me several times if I wouldn't do part of my thesis work under him, and I have at last consented. So I shall probably try to find out how the wave front of an electric current is propagated through liquid dielectric as benzene, toluene, etc., and from that and conductivity measurements like those I was making this summer, try to find out how or why current is carried through a 'non-conductor' anyway."

Brownie writes from Washington, D. C., street address 3921 13th Street, N. W., and he's married. He's gone and done it! Of course we all thought he would pretty soon, anyway, but just the same we are all pleasantly surprised when any one does get married. Congratulations, Brownie, and now tell the rest of the fellows all about it:

"I was mighty glad to receive your letter a few days ago. In fact, it ended a rather lengthy search for your letter of last fall which (the letter) has gotten into some out of the way corner of this house and refuses to make itself visible. But that wasn't all; I was mighty glad to hear from you and the old bunch of bums from Course XIV.

"You see your letter arrived just after I had made a new start in life. In other words, I had not yet finished what is commonly called a honeymoon. Yes, I have gone and ruined my 'single blessedness' and I have found that it wasn't a bad move at all. In fact, instead of imploring your pity, I rather feel sorry for you less fortunate brothers. There is no use going into details; you saw who was wearing a ring before you left Tech. And the Miss Robert, that was, sends her regards to you all.

"I changed my plans about going to the Islands and started in work here on October 1 with 'Pennie, Davis, Marvin, and Edmonds,' a Patent Law firm of New York. This isn't exactly a branch office here in Washington, but a sort of auxiliary office. We do all the searching in the U. S. Patent Office and therefore have quite a lot of technical work. I can't say that I am at all displeased with either the hours or the work. I am taking a course in law. With all of that I am kept rather busy."

Tom Mattson, my worthy assistant, was the third to send in news. Much of his is similar to Norris's and since Norris's letter came later I quoted from him as containing perhaps the latest items. Some of the credit therefore goes to Tom for news included under Norris's name. In contradiction, however, to what Norris said, Tom informs me that he is with the Boston Elevated Railway in their Electrical Engineering Office. He is able to make an occasional visit to the Institute and there meet what is left of the old gang, which for a course of our size is considerable.

Harold G. Donovan, *Secretary*,
Box 385, Niagara, Wis.
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Secretary-Treasurer, Alumni Association

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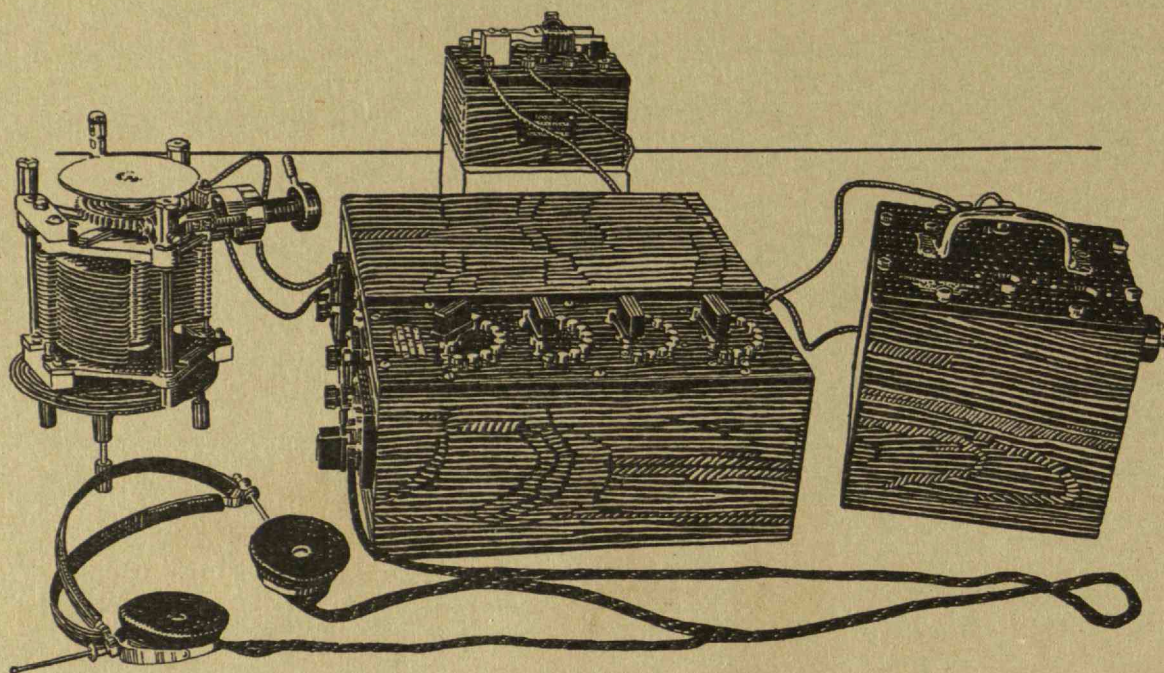
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